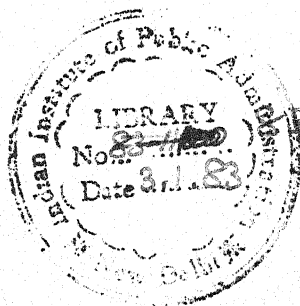


RECORD COPY

DEPENDENCE AND DOMINANCE
ECONOMICS OF LAC IN SOUTH BIHAR



KAMAL NAYAN KABRA



8-11100

INDIAN INSTITUTE OF PUBLIC ADMINISTRATION
INDRAPRASTHA ESTATE, RING ROAD,
NEW DELHI - 110 002.

1979

PREFACE

The consultancy assignment on Lac Marketing and the Policy of Support Prices was entrusted to the Indian Institute of Public Administration, New Delhi, by the Chhota Nagpur and Santhal Pargana Regional Development Authority vide D.O. letter No. 3851/RDC, Ranchi, dated, the 2nd September, 1977. We were commissioned to study the following questions:

- "(1) The working of the Haats and its various operators dealing in lac, their inter-relations and their links with the higher levels of lac processing and exports;
- (2) The Government policies in the field of lac, particularly, in respect to price support and the mechanism of its implementation;
- (3) The remedial measures emerging from the study of the first two questions." (P. 6 of the Consultancy Proposal submitted by IIPA; it was in terms of this proposal that the IIPA was given the assignment).

The study, by its very nature, has to concern itself with questions concerning the economy of the lac region, production of lac and the socio-economic profile of the growers and traders, albeit only to provide general support to the major thrust of the study, i.e. the marketing system and the role and efficacy of public policies concerning lac. In all the recent policies, the major underlying concern appeared to be the interests of the millions of

growers of lac. We too have adopted a similar perspective with respect to our analysis of various aspects of lac-based activities and government intervention in these matters.

The study originated in the efforts of Dr. B.D. Sharma, then Joint Secretary (Tribal Development) Ministry of Home Affairs, Shri P.C. Bhagat and Shri G.S. Grewal, then R.D.Cs, Ranchi and Shri R.N. Haldipur, the then Director of IIPA. We gratefully acknowledge our many debts to them. Shri Haldipur took a great deal of interest in the work and his support and guidance immensely helped our work.

Such a study cannot be carried out without generous and multifarious help from many quarters. Mention in this connection must be made of Shri S.K. Mukherjee, R.D.C., Ranchi, Shri A. Surin, Shri D.K. Banarjee and Dr. T. Bhowmik, (BISCOLAMF), Late Shri R. Sinha, Shri A.K. Chatterjee (BSEC), Shri S. Majumdar (SEPC), Shri K.B. Saxena, Shri A.R. Rao (Directorate of Lac Development), Shri Bhupinder Singh, Joint Secretary (Tribal Development), Ministry of Home Affairs, Shri R. Prasad, Father M.V. d. Bogaert, S.j. and Dr. S.K. Saha of ILRI. We express our grateful thanks to all of them.

Our work was greatly helped by our Research Staff consisting of Shri Satish Jha, Smt. Poonam Sethi Barua and Shri G. Subramanian. The survey of haats and grower households was carried out by S/Shri Sajid Ali, Pratul Chandra, Anand Ekka and Timoti Khalkho of Xavier Institute of Social Service, Ranchi. We put on record our sincere thanks and appreciation of the valuable assistance provided by all of them. Shri R.M. Sahay, Shri K.S. Chalapati Rao and Shri Pranab Banerjee helped us in many ways during the final stages of the work. It would be only appropriate to take this opportunity to express our sincere thanks to them.

Thanks are due to Shri B.K. Anand, Shri B.C. Pandey, Shri G.K. Arora, Shri R. Kaushik, Shri J.K. Kalra and Shri Harinder Pal Singh who bore the burden of providing secretarial assistance during various stages of our work.

We also take the opportunity to express our thanks and gratitude to Shri T.N. Chaturvedi, Director, I.I.P.A. for encouragement and support in many diverse ways.

It would be impossible to list all our respondents and sources of information from among lac growers, traders, paikars, arhtias, processors, manufacturers, exporters and many other

technical and professional people. But for their cooperation and indulgence, our study could not have been completed. Many institutions provided us substantial help in carrying out our task. A mere mention can hardly recompense their generous obligation towards us. We put on record our gratitude to the following: Bihar State Cooperative Lac Marketing Federation, Bihar Export Corporation, Directorate of Lac Development, Lac Research Institute, Shellac Export Promotion Council and State Trading Corporation.

The consultancy was taken up jointly by myself and Prof. S.K. Goyal. Not only during the initial work, but even during the later stages, we worked together on the project. However, owing to certain preoccupations, Prof. S.K. Goyal could not continue his association with the project during its final phase. To be able to express one's thanks and gratitude when they happen to be practically in lieu of co-authorship is a difficult task indeed.

KAMAL NAYAN KABRA

CONTENTS

	<u>Page</u>
Preface	
Chapter - I : Introduction	1
Chapter - II : The Lac**Region: Broad Economic Contours	9
Chapter - III : The Lac Economy: A Historical Perspective	21
Chapter - IV : Lac Production: Trends and Problems	39
Chapter - V : Exports of Lac Products	67
Chapter - VI : Lac Growers: A Socio-Economic Profile	98
Chapter - VII : Lac Prices, Marketing and Impact of Public Policy	157
Chapter - VIII : Summary and Conclusions	233
Chapter - IX : Recommendations	263

List of Tables

	<u>Page</u>
Table 4.1 : Showing triennial average production of Sticklac in India : 1960-61 to 1977-78	60
Table 4.2 : Showing quinquennial average production of Sticklac in India: 1960-61 to 1977-78	61
Table 4.3 : Average Five Yearly production, exports and exports in sticklac equivalents at 42 per cent and 61 per cent rate of recovery of shellac from sticklac	62
Table 4.4 : Export of Lac as a percentage of Crop Position of Sticklac: 1965-66 to 1977-78	63
Table 4.5 : Estimates of State-wise production of Sticklac in India during 1969-70 to 1977-78	64
Table 4.6 : Estimates of District-wise productions of Sticklac in Bihar (Qtls.)	65
Table 4.7 : Crop-wise production of Sticklac in India during 1969-70 to 1977-78 (in M. Tons)	66
Table 5.1 : Export of Lac (All kinds) from India	85
Table 5.2 : Quantity and Value of Seedlac and Shellac export from India (1965-66 to 1975-76)	86
Table 5.3 : Showing share of Lac in total exports from India on Triennial Average Basis	87
Table 5.4 : Average Quinquennial export of lac (all kinds) from India and Average Quinquennial Value exports	88
Table 5.5 : Average Decennial export of lac (all kinds) and Average Value of exports: 1925-26 to 1975-76	89

Table 5.6	: Average Triennial Export of Lac (all kinds) from India and Average Triennial Value of Exports	90
Table 5.7	: Share of Lac in total exports from India : 1960-61 to 1974-75	91
Table 5.8	: Commodity-wise composition of India's exports : 1950-51 and 1970-71 and place of Lac in it.	92
Table 5.9	: Grade-wise Export of Lac from India:1965-66 to 1977-78	93
Table 5.10	: Comparative statement showing Export of Hand made and Machine made Shellac from India : 1965-66 to 1977-78	94
Table 5.11	: Export of Lac (all kinds) from India to leading countries (Quantities in Tons & Values in Rs. lakh)	95
Table 5.12	: Performance of Major Export Houses of Seedlac & Shellac during 1972-77 (Export figures are in Tons)	96
Table 5.13	: Share of M/S Achruram Kalkhof and Co.(S)P.Ltd. in total Indian Exports of Germans in Packages of 75 Kgs.	97
Table 6.1	: Percentage Distribution of Lac Grower Households according to religion	131
Table 6.2	: Percentage Distribution of Households according to family size	132
Table 6.3	: Sex-wise Percentage Distribution of Family members in the Sample Households	133
Table 6.4	: Percentage Distribution of Family Members in Sample Households according to Age Group	134
Table 6.5	: Percentage Distribution of Members of Grower Households according to Educational level	135

Table 6.6	: Workers/Non-workers as Percentage of Members of Sample Grower Households	136
Table 6.7	: Percentage Distribution of Households according to the source of Family Income	137
Table 6.8	: Percentage Distribution of Households according to Average Quantity of Agricultural Production	138
Table 6.9	: Percentage Distribution of Households according to number of varieties of crops grown	139
Table 6.10	: Percentage Distribution of Reporting Households according to source of inputs	140
Table 6.11	: Percentage Distribution of Households selling goods other than Sticklac	141
Table 6.12	: Percentage of Households according to the ownership of the type of host trees	142
Table 6.13	: Percentage Distribution of Grower Households according to quantity of broodlac used	143
Table 6.14	: Percentage Distribution of Grower Households according to the expenses incurred on broodlac	144
Table 6.15	: Percentage Distribution of Grower Households according to place of marketing of Sticklac	145
Table 6.16	: Percentage Distribution of Households according to reported distance of market place (haats) from the village	146
Table 6.17	: Percentage Distribution of Households according to mode of transport used for haats	147
Table 6.18	: Percentage Distribution of Grower Households according to transport charges paid	148

Table 6.19 : Percentage Distribution of Grower Households according to the agency to whom sales are made	149
Table 6.20 : Percentage Distribution of Grower Households by Quantity of Sticklac sold	150
Table 6.21 : Percentage Distribution of Grower Households according to the market charges paid on each day lac brought to the market	151
Table 6.22 : Percentage Distribution of Grower Households according to the main source of knowledge about price of Sticklac	152
Table 6.23 : Some Important Information about Growers	153
Table 6.24 : Percentage Distribution of Grower Households according to area for which crop forecast is made	154
Table 6.25 : Percentage Distribution of Grower Households according to the frequency of the realisation of price expectation	155
Table 6.26 : Percentage Distribution of Grower Households according to the source of knowledge about the nature of current crop	156
Table 7.1 : Average Annual Price of Sticklac, Seedlac and Shellac	211
Table 7.2 : Showing Annual Average Price Index of Sticklac, Annual Production Index of Sticklac, Annual Export Index of Lac (all kinds) in terms of Sticklac equivalent (Base Year - 1969)	212
Table 7.3 : Average Quarterly Prices of Sticklac, Seedlac Shellac (Rs. per quintal)	213

Table 7.4	: Absolute change in the Quarterly Average price of Sticklac, Seedlac and Shellac	214
Table 7.5	: Average Seasonal Price of Sticklac(Rs. quintal)	215
Table 7.6	: Difference between (a) Annual Average Sticklac and Seedlac prices; (b) Annual Average Seedlac and Shellac price; (c) Annual Average Sticklac and Shellac price (in Rupees/quintal)	216
Table 7.7	: Price Spread between International and Calcutta Market prices of Shellac	217
Table 7.8	: Price spread between Sticklac prices and process realized from export of Shellac	218
Table 7.9	: Sticklac and Seedlac prices as percent of seedlac and Shellac price	219
Table 7.10	: Showing Minimum Export Price (MEP), International and Calcutta Prices of Shellac	220
Table 7.11	: Seedlac prices at International Market and Calcutta Market, the spread between the two and Calcutta Market prices as percent of International Market prices of Seedlac	221
Table 7.12	: Distribution of haats according to number of feeder villages	223
Table 7.13	: Percentage Distribution of haats according to their distance from central haat	224
Table 7.14	: Percentage Distribution of haats according to their distance from the nearest seedlac/shellac factory	225
Table 7.15	: Percentage of Haats auctioned according to annual auction values	226

Table 7.16 : Percentage Distribution of haats according to turn-over of Lac	227
Table 7.17 : Showing the distribution of Paikars according to profit margin	228
Table 7.18 : Percentage Distribution of Paikars according to caste	229
Table 7.19 : Demographic Characteristics of a Trader Household	230
Table 7.20 : Worker/Non-worker according to age and sex among traders households	231
Table 7.21 : Percentage Distribution of Grower Households according to the acquaintance of buyers with the Grower	232

CHAPTER - 1

INTRODUCTION

DEPENDENCE AND DOMINANCE ECONOMICS OF LAC IN CHHOTANAGAPUR

Primary producers like small farmers and collectors of forest produce not only suffer from low productivity but are also denied a fair share of their poor productivity. It goes without saying that the two are inter-related facets of a common phenomenon. Land relations, tenurial conditions, debt bondage and inequities involved in the marketing process are often held responsible for the less than fair returns derived by the small farmers and petty producers of various commercial crops minor forest produce and other primary sector raw materials. These economic relations are increasingly being related to social and political forces operating in the rural areas to which such primary sector production is largely confined.

In most of such writings, the rural power structure is largely taken as a self-contained unit capable of explaining the situation through its own interaction mechanism. The fact that this production is in many direct and indirect ways related to non-rural, non-agricultural activities, both

at the national and international levels in fairly regular and systematic manner, is hardly considered consequential for understanding the poverty-stagnation perpetuation syndrome characteristic of the large mass of primary producers.

If the primary produce happens to be a forest-cum-tribal product, like lac, the temptation to situate the economics of such products and their producers almost exclusively in the immediate milieu of the rural-tribal economy is even stronger. Consequently, the village landlords, rural rich, money lenders, forest contractors and village primacy produce traders are taken to be involved in a fairly intricate web of inter-relationships with the growers. These processes, being highly inequitous and dominated by the resource-holders, leave the growers in an unenviable position in social, economic and political spheres. While there is no gain saying the role of the immediate interactors with the growers, it becomes difficult to comprehend the totality of the socio-economic processes making the growers increasingly helpless victims to the power and position of the dominant interests in their immediate neighbourhood alone. It is difficult to ignore the fact that products of these small and scattered growers

have been reaching international markets, either in processed, semi-processed and/or raw forms for long periods of time through a set of well-organised modern corporate entities. Hence it becomes all the more untenable not to extend the links of the large mass of growers to the few big and dominant disposers of the primary products. The linkages of the primary production activities through money and commodity capital and through labour and wage-goods markets extend to the non-rural, non-agricultural activities through many strong and systematic channels. The village power centres and resource holders are also linked to the urban, non-primary activities in many different ways. At times, they are mainly a certain kind of conducts for carrying out the bidding of the internationally-linked principals. Not to relate the primary sector production, pricing, marketing, processing and reproduction activities to the activities, interests, modus operandi and linkages of the most modernised, most concentrated and centralised apex of any particular branch of production, like, for instances, lac, is to foreclose from our purview most of the interesting possibilities of understanding the mechanics of the repetitive processes of increasing immiserisation of the poor and small growers of products like lac.

As stated, this procedure does not understate the role of the local power structure and socio-economic relations. It only attempts to look at the totality of relationships which govern the fortunes of such internationally traded products like lac which encompass in the framework of its activities the most diverse sets of economic agents. The coverage of such interrelated operators extends from poor, unorganised, scattered growers and middle level traders, informal sector paikars, small scale cottage industry entrepreneurs, a whole body of transporters and warehousing operators, many Government extension and regulatory functionaries to the most modern merchants, processors and exporters. The patterns of their horizontal and vertical linkages and integration add yet another complicating dimension to the complex physical and technical aspects of the production of these commodities.

In our attempts to understand the economics of and public policies (i.e., the political economy) regarding lac at its different stages of production, we decided to set out to explore, to the extent possible, the entire spectrum of socio-economic relations among all the interests involved rather than draw our frontier at the local, immediate interaction level.

It is this basic methodological decision which enables us to understand the relationships of dependence and domination existing between the long-chain of interests ranging from primary producers of sticklac to exporters of shallac. This kind of a decision was very important as a point of departure for our study because in a long series of studies on lac witnessed since 1921, (which we discuss in the chapter on Lac Economy: A Historical Perspective) one finds quite a deal of repetitiveness and, at least on the criterion of actual follow-up, a certain degree of sterility. One important reason for it which appealed to us *prima facie* was that, while at one end, the interests of the growers and domestic income and employment effects have hardly received the attention they deserve, at the other end, one finds a logically inter-connected want of adequate concern for the structure, motivation and modus operandi of the terminal export-oriented end of lac based activities.

We wanted to bring in these aspects without giving up an attempt to understand the relationships obtaining at the primary production and first phase marketing level i.e. at the village and the haat levels. Thus, our attempts was

to understand, in an integrated manner, the forces operating at the primary production and marketing level along with those operating at the terminal export level through the processes of intermediation and explicitly taking into account the structural and organisational aspects. Since fairly comparable time series data about the major activities concerning lac were fortunately available, we were able to relate the performance of lac-oriented activities to its structure and organisation.

Our analysis of price spreads and pricing shows clear patterns of dependence of income and employment from lac for the huge body of growers on the dominance in processing and exports exercised by a handful of modernised processors and exporters. Their dominance, based on their resource-holding, organisational form, technology, market power through brand names and close buyer-seller relationships and organised use of and response to state policies of intervention, manifests itself in the availability of a number of options to them which determine the outcome from lac-based activities not only for millions of small and dispersed growers but also for intermediary traders and cottage sector processors.

The domination of the handful of manufacturers-exporters on the time profile of demand, supply, prices etc.

of lac, an important minor forest produce (MFP) providing important subsidiary occupation to the small farmers and the landless, results into adverse impact on the income, employment, savings and capital formation of the lac growers. The dependence of the fortunes derivable from a subsidiary occupation scuttles the opportunities for developing beneficial linkages between the main and the subsidiary occupations. The dependence and inadequate returns in lac growing thus reinforce the general backwardness of the lac growers. It is in this perspective that we look at freeing of and realising the potential of lac-based activities from the point of view of millions of its petty growers.

In chapter one, we look at the broad economic contours of the lac region comprising of the three districts of south Bihar. In the next chapter, we survey the historical trends in the lac economy along with a review of the past attempts at understanding it and of governmental regulation of it. Chapter three deals with various problem of its production in the light of an analysis of production trends and patterns. Having dealt with its supply side, in chapter four we turn to an analysis of the trends and problems of lac exports - a major element on the demand side.

In the fifth chapter, we present a socio-economic profile of lac growers as it emerges from our field survey and visits. In the sixth chapter we go into various questions of lac prices, price-spreads, marketing, a thorough review of recent public interventions in the form of MEP, partial canalisation, support price and buffer stock operations and their impact on prices and marketing. In this exercise we make use of, apart from the results of our survey and field discussions, data about lac prices and prepare all-India average price indices of sticklac. In the last two chapters, summary, conclusions and recommendations are presented.

CHAPTER - II

THE LAC REGION : BROAD ECONOMIC CONTOURS*

Lac being a natural produce, its production depends upon certain bio-geographical factors which are best obtained in the Chhotanagpur plateau region and its surrounding regions in India. Within this region also the districts of Palamau, Ranchi and Singhbhum taken together produced over half of the total Indian production of lac. Though lac is not the only important minor forest produce (MFP) in this region, its importance lies in the fact that it provides subsidiary all-the-year-round employment (in production, collection, marketing and processing) to about half a million households

*This brief outline of the economy of the three districts is based on data obtained from:

- (i) The census reports;
- (ii) Reports of the Lead Banks for these districts;
- (iii) Agricultural census of Bihar, 1971;
- (iv) Ghosh P.P., Input-Output structure of Bihar, Patna, 1975;
- (v) Ramachandran P.C., Perspective for Forestry in Bihar, Optima, New Delhi 1977 (Mimeo);
- (vi) N.C.A.E.R., Techno-Economic Survey of Bihar, 1959;
- (vii) K.N. Prasad, The Economics of a Backward Region in a Backward Economy : (A case study of Bihar in relation to other states in India), Scientific Book Agency, Calcutta, 1967-68.

of this region.

Since lac production, marketing and processing show a fairly high degree of concentration in the Chotanagpur region, it is important to see why and how it has come about and in what ways do lac based activities affect and interact with the economy of the region. Also for understanding the nature and problems of lac economy, one would need to have look at the regional economic structure and the state policies pursued in relation to lac. It is in this context that we are looking at a broad profile of the three most important lac growing districts of Chotanagpur, which we may term as the lac region, and then in the next chapter move on to analyse past policies concerning lac. Such a quick look at the immediate regional dimension is likely to provide a framework for appreciating the problems of lac.

THE REGION:

South Chotanagpur is an administrative division within the Chotanagpur region comprising the three districts of Palamau, Ranchi and Singhbhum. It is a part of Plateau region with an average altitude varying between 305 to 610 meters above sea level, alternating with rivers, valleys and basins separating the hills. This plateau region is the north-easterly projection of the plateau of Peninsular India.

This region gets more rainfall than the Northern Plains regions of Bihar (an average of 1350 mm per annum) and is cooler in climate than the rest of the regions in the same latitudinal position. Monsoon starts in the middle of June and continues upto early October. Hathia rains are very crucial for Kharif crop as it comes at an important stage of paddy crops. It also helps in maintaining soil moisture for the sowing of Rabi crops. Rainfall is a critical factor for agricultural production in view of non-availability of adequate irrigation facilities.

Mean daily maximum temperature in the plateau region varies between 23.1°C in winters to 39.1°C in summer, whereas the mean daily minimum temperature ranges between 10°C to 26.1°C. Humidity is high ranging from a minimum of 48 p.c. to a maximum of 82 p.c. These climatic conditions have resulted in the cultivation of lac at a commercial scale in this region because under these conditions the lac insect can have a longer life and the thickness of the layer of sticklac increases accordingly.

DEMOGRAPHIC FEATURES :

The total population of the three districts in 1971 was 6.5 millions; density of population varying from 118 per

sq. km. in Palamau to 181 in Singhbhum against 324 for Bihar as a whole. Rural population as percent of total population is highest in Palamau (95.3%) followed by Ranchi (86.3%) and Singhbhum (67.8%). Thus only Singhbhum shows a relatively high degree of urbanisation.

The following table show the trends in population growth rate in the three districts since 1921. It shows a decline in population growth rate upto 1951 in all the three districts. The rate of growth in this region is, however, higher than the rate for the State as a whole.

RATES OF POPULATION GROWTH SINCE 1921

Sl. No.	Name of District	Year				
		1921-31	1931-41	1941-51	1951-61	1961-71
1.	Palamau	11.64	11.48	8.80	20.49	26.65
2.	Ranchi	17.44	6.91	11.09	15.86	22.11
3.	Singhbhum	22.19	19.25	8.64	20.54	18.92
4.	Bihar State	11.45	12.20	10.27	19.28	21.33

According to 1971 census data the percentage of tribal population in Bihar State is 8.75. In Ranchi, Singhbhum and Palamau their proportion is 58, 46 and 19 per cent, respectively.

In all about 49.3 lakhs tribals are reported to be in Bihar of which 63 per cent i.e. about 30 lakhs are concentrated in this region. The major tribes living in this region are the Oraons and Mundas. These tribes have taken to settled cultivation and a section of them have also been taking up employment in mineral and industrial undertakings and numerous other activities. However, they are still dependent on collection of forest produce for a fairly significant part of their income. Lac contributes fairly to the economy of the tribal household. The percentage of non-workers among tribal households are 66.18 in Palamau, 67.57 in Ranchi and 63.73 in Singhbhum. A socio-economic profile of the lac grower based on the results of our sample survey is presented in a separate chapter. The average total family size of Bihar is 5.7 and that of Palamau, Ranchi and Singhbhum districts are 5.5; 5.3; and 5.0 respectively. The average rural family size remains the same for Bihar as a whole and of Palamau and Singhbhum districts, but is slightly more in case of Ranchi (5.4). The sex ratio in Bihar is 954, and in the districts of Palamau, Ranchi and Singhbhum it is 963; 973; and 942 respectively.

REGIONAL BACKWARDNESS

AGRICULTURE :

The region is extremely backward and poverty-stricken, even in the Indian and Bihar contexts. Area under cultivation as a proportion of the total reported area is 50.5 ^{per cent} /for Ranchi, 18.9% for Singhbhum and 13.2% for Palamau - figures much lower than that of the state. Agricultural productivity is, according to one state*, between Rs. 750 to Rs. 1000 of output per hectare in value terms. Productivity per worker varies below Rs. 500 per annum and during 1960s productivity per worker is estimated to have declined by as much as Rs. 140 per worker. The gross annual agricultural income per head of agricultural population is, therefore, extremely low.

Agriculture in this region has remained backward due to natural, technological as well as institutional factors. Whereas the acidic soil certainly acts as a constraint on increasing productivity by indigenous methods, inadequacy of irrigation facilities, lack of adequate extension facilities, and concentration of land ownership etc. hold back the

* Raza, Moonis : Levels of Regional Development in India.

realisation of the potential that exists in its agriculture. The main agricultural produce in the area is rice. The share of rice in the total agricultural income in Palamau was 49%, in Ranchi 92% and 96% in Singhbhum (1971). The yield per hectare in the three districts in 1970 was 677 kgs, 762 kgs. and 863 kgs. respectively**.

As the population engaged in collection of minor forest produce is believed to be essentially tribal and dependent mostly on agriculture for major part of its income, the low level of agricultural income makes it furthermore dependant upon the forest produce.

FORESTS :

Forests in Bihar cover about 17 per cent of total land area against the all India average of 23 per cent. The bulk of these forests lie in the Chotanagpur region. In Ranchi district forests cover 18.2 per cent of total reported area whereas in Singhbhum and Palamau the proportions go upto 33 per cent and 44 per cent respectively. However, the share of forests in total land area has been dwindling, yet the per head forest

**A. Mohammad, Dynamics of Agricultural Development, New Delhi, 1978.

area in these three districts is about four times that of the average per head forest area in the state.

Timber and fuel are the major forest produce in these areas. At present the growing stock of timber is estimated at about Rs. 600 crores at current prices. Among the minor forest produce, which includes everything other than timber, the production of lac in value terms is the most important MFP. In 1978-79 when the production of sticklac in Bihar touched its historically lowest level, the value of sticklac production was estimated as about Rs. 2 crores. Distributed over about 5 lakhs workers it would amount to about an average of Rs. 40 per worker for the year. The three districts together produce about 60 per cent of all India lac production which in last ten years has contributed anything between Rs. 2 crores to Rs. 10 crores per annum. Production of sticklac, however, has witnessed a spectacular decline unlike other forest produces.

Outlays for forest development in Bihar have been rather meagre and it has remained a net revenue earner for the state. During 1977-78 the gross revenue of the forest department was about Rs. 17 crores of which about Rs. 10 crores was a direct contribution to the state exchequer. Of this

about 35 per cent of revenue is derived from MFPS. The total Fifth Five Year Plan allocation for the sub-plan region was estimated at Rs. 350 lakhs only.

INDUSTRY :

Industry occupies the second position in terms of employment in the region. A little more than 9 per cent of the workforce is engaged in industrial activities, in both household and non-household sectors. Inter-district variation in industrial employment is quite pronounced. Whereas 6.6 per cent of workforce is employed in other than household industries in the region as a whole, among districts it varies from 1.2 per cent in Palamau to 11.85 per cent in Singhbhum. Ranchi has only as little as 4.13 per cent employment in non-household sector. These employment figures, however, include a good number of migrant workers.

On the other hand, Ranchi accounts for 45 per cent of the regional workforce in household industries whereas Palamau employs only about one-sixth of the total workforce of this region in this sector. The total employment in manufacturing and processing activities, however, is only 3 per cent of the total workforce in Palamau, 7 per cent in Ranchi and 13.3 per cent in Singhbhum.

TRADE & COMMERCE

Trade and commerce along with transport employ about 5 per cent of the total workforce - concentration being in Singhbhum district (50.75) followed by Ranchi (35%) and Palamau (14.25%).

Collection of local produce is carried out through haats, mandis, melas etc. which are held over more than 500 centres within the region. State regulation of markets is confined to looking after law and order and the collection of auction prices. Only Ranchi town has a regulated market. A sizeable number of markets are controlled by local bodies as well.

The region exports agricultural commodities, forest produce, minerals, iron and steel, engineering goods, some manufactured articles and transport equipments. Its imports consist of foodgrains, vegetables oil, sugar, manufactured and processed consumer goods, and industrial raw materials such as coal and steel alloys etc.

INFRASTRUCTURE :

Surfaced road mileage per lakh of population in Palamau, Ranchi and Singhbhum are 41.01, 36.72 and 22.31 miles

respectively, as against 20.61 miles for Bihar. However, road mileage per 1000 sq. km. of area is below the average of 6.68 miles for Bihar ranging between 4.04 for Singhbhum to 5.23 miles in Ranchi. This indicates the large area this region commands, its low population density and poorer road coverage in relation to area.

As on 31st March, 1971, only 1.70 per cent of villages in Singhbhum, 3.08 in Ranchi and 8.60 in Palamau were reported to have electricity ^{as} against an average of 9.96 per cent of village in Bihar.

CONCLUSIONS :

From the above it is clear that the region is extremely backward with a large proportion of the population depending upon a backward agriculture and, for subsidiary employment, on forest produce. The organised sector in industries though well developed in Ranchi and Singhbhum and using modern techniques is not integrated with the economy of the region and provides employment to only a small percent of the local workforce.

The industrial sector uses local fuels and mineral resources but their location in the region does not seem to have affected the local people the economy of / in any significant way. As a result the

bulk of the population remains unemployed and under-employed with low incomes and dependant on backward agriculture and forestry. To ameliorate the economic condition of the people in this region, development of agriculture and foresting need to get the topmost priority. Also is required the development of industries which utilise the local forest produce and thereby increase employment as well as the demand for the forest produce. In the case of lac, for example, it will be beneficial for the lac growers if industries using lac as a raw material (e.g. chemicals, electronics, etc.) are encouraged to develop. Such a development strategy, instead of creating pockets of highly sophisticated industries, will be integrated with the principal resources and sectors of the region's economy and hence will be more effective in raising the standard of living of the population of the region.

respectively, as against 20.61 miles for Bihar. However, road mileage per 1000 sq. km. of area is below the average of 6.68 miles for Bihar ranging between 4.04 for Singhbhum to 5.23 miles in Ranchi. This indicates the large area this region commands, its low population density and poorer road coverage in relation to area.

As on 31st March, 1971, only 1.70 per cent of villages in Singhbhum, 3.08 in Ranchi and 8.60 in Palamau were reported to have electricity ^{as} against an average of 9.96 per cent of village in Bihar.

CONCLUSIONS :

From the above it is clear that the region is extremely backward with a large proportion of the population depending upon a backward agriculture and, for subsidiary employment, on forest produce. The organised sector in industries though well developed in Ranchi and Singhbhum and using modern techniques is not integrated with the economy of the region and provides employment to only a small percent of the local workforce.

The industrial sector uses local fuels and mineral resources but their location in the region does not seem to have affected the local people the economy of \angle in any significant way. As a result the

bulk of the population remains unemployed and under-employed with low incomes and dependant on backward agriculture and forestry. To ameliorate the economic condition of the people in this region, development of agriculture and foresting need to get the topmost priority. Also is required the development of industries which utilise the local forest produce and thereby increase employment as well as the demand for the forest produce. In the case of lac, for example, it will be beneficial for the lac growers if industries using lac as a raw material (e.g. chemicals, electronics, etc.) are encouraged to develop. Such a development strategy, instead of creating sophisticated pockets of highly / industries, will be integrated with the principal resources and sectors of the regions' economy and hence will be more effective in raising the standard of living of the population of the region.

CHAPTER - III

THE LAC ECONOMY : A HISTORICAL PERSPECTIVE

Lac in its finished form finds use in a number of industries as an intermediate product. Its consumption, therefore, depends, to a large extent, on the level and type of industrial development. This fact is corroborated by its use in large quantities in industrially advanced countries like USA, UK, W. Germany, USSR etc. who account for about 55 to 60 percent of its world consumption. Its use pattern has also undergone changes alongwith the pattern of industrial development as is reflected in the fact that its consumption changed from being used for dyes to gramophone industry and is lately being used in sophisticated pharamaceutical, electronic and defence industries.

Lac - a versatile industrial intermediate good - is a unique natural resin. It has another special dimension in as much as while, at one end, its collection and cultivation involves a large number of tribal and non-tribal, poor growers spread over many forest parts of the country, its final disposition involves sophisticated, modern industries in many industrialised countries of the world through a handful of manufacturers - exporters at the other end. In between these two ends - the

primary haats and the terminal users - there is a large army of traders, agents, processors, transporters and warehousing units. Perhaps owing to such technical and organisational uniqueness, lac production and marketing has passed through a series of vicissitudes in its fortunes in which the lowest end of the spectrum, the growers (as we shall show later on) have been the worst sufferers. This factor has lent, therefore, another unique feature to lac. Of large number of minor forest products similar to lac, no other product has invited so much of public intervention and in the process has been subjected to so many studies and enquiries. Any understanding of the problems and prospects of lac production and marketing and the nature and role of public intervention in it, will do well to take an account, by way of historical background, of these studies and interventions. This will not only place the present study in a proper historical perspective, but may also be essential for the much needed continuity in such exercises.

One of the earliest known public interventions in the process of lac production and marketing was the constitution of a committee headed by Messers Lindsay and Harlow in 1921 to investigate the possibilities of increasing the production

of shellac in order that constraints posed by supply position and fluctuations in its prices could be minimised. In the background of this study were the large fluctuations in the Indian supply position and prices of lac. Production varied between the minimum of about 6000 tons in 1901-2 to about 28000 tons in 1909-10 and prices varied between Rs.0.81 per kg. to Rs.3.80 per kg. during the first two decades of the twentieth century. The objective of the Committee, therefore, was to bring about stability in its production. It was also its purpose to suggest measures for increasing the supply of lac products to meet the needs of British and other foreign buyers at reasonably low and non-fluctuating prices. The Committee suggested that scientific research should be carried out to improve production techniques of stick lac and also suggested Government intervention in production of sticklac in the form of production and distribution of broodlac through cooperatives. It also suggested monitoring of crop prospects. As a follow up, the Indian Lac Research Institute was established at Ranchi in 1925 for conducting researches on improved practices of cultivation. On the other hand, the recommendations about organising cooperative credit societies for distribution of broodlac, etc., were not acted upon.

In 1920s the production, export and prices of lac showed some improvement in their overall level. Exports of lac from India ranged between about 22,000 tons in 1924-25 to about 38,000 tons during 1928-29 whereas the average realised prices ranged between about Rs.2.00 per kg. to Rs.4.00 per kg. of lac. A declining trend in the exports of lac set in, beginning with 1929-30 and continued until 1933. Prices during this period declined from Rs.2.05 per kg. in 1930 to Rs.0.58 per kg. in 1932-33. These developments accompanied the Great Depression of 1929-33. However, the worst was to come during 1935-41 after the collapse of London Syndicate when prices crashed to as low a level of Rs.0.39 per kg. in 1938-39, and then, marginally going up to Rs.0.75 per kg. in 1940-41. While exports remained at a high level ranging between 30,000 tons in 1940-41 to 42,000 tons in 1936-37, the value of exports during this period remained about one fourth of 1920s level. The lowest price of TN Shellac, which was then considered to be a representative grade, had come down to Rs.0.33 per kg. which allowed only about Rs.0.07 to Rs.0.10 per kg. for sticklac to the growers.

During late 1930s political situation in India also Indian National changed; the Congress led Government had come to power in the provinces. The Congress Government in Bihar called an

informal conference of various interests in lac as a response to the hue and cry raised by the trade circles. This conference recommended certain remedial measures for stabilising the trade, which included (a) licensing of all the dealers and manufacturers and formation of their association under Government supervision; (b) establishment of a joint-control Board by the Governments of lac producing provinces to deal with the problems of lac industry; (c) establishment of factories using shellac and seedlac as raw material by the Government of India to intensify research work in the industrial uses of lac; and (d) take appropriate action to ensure quality control. Thus, whereas the Lindsay - Harlow Committee had concentrated its attention on raising the production level of lac, the Conference of 1938 emphasised mainly on commercial and regulatory aspects as the production and export level of lac from India had remained at a very high level during the preceding period. However, these policies also could not be implemented owing to the collapse of the Congress Government and also due to beginning of the Second World War.

During the War though the exports declined from about 39,000 tons during 1939-40 to 12,000 tons during 1943-44, the

prices showed some improvement from Rs.0.49 per kg of lac to about Rs.2 per kg. During this period, the supplies, purchases and exports of shellac were brought under the control of the Government, which continued until 1946. Immediately after the controls were lifted, the prices showed an upward trend, showing pressures, which continued upto 1949 whereas the exports fluctuated around 25,000 tons during the post War period right up to 1949.

During the war period a detailed survey of the cultivation, manufacture and exports of lac was carried out by the Agricultural Marketing Adviser to the Government of India, which was published in 1942. The main recommendations of this report related to production and sale of sticklac and manufacture and marketing of seedlac and shellac. While recommending policies for improving cultivation, the Report emphasised mostly on technical aspects of its production without taking note of the grower's socio-economic conditions. The Report also emphasised the need for market regulation and suggested standardisation of marketing practices, manufacturing methods etc. However, the War did not allow implementation of these recommendations.

After the War, the control over lac trade was lifted and prices showed a steep rise and wide fluctuations. The prices ruled around Rs.2.00 per kg before the control was lifted. Immediately after the war it shot up to Rs.3.25 per kg. Though unit value realisation figures show a very consistent picture during 1946-52, the price fluctuations within a year were very wide so as to necessitate calling of another Conference in 1949 by the development minister of Bihar which finally recommended "control over all matters relating to lac cultivation and trade, appointment of a lac marketing Board and licensing of cultivators, dealers and manufacturers etc". At the same time export of shellac on a monopolistic basis was suggested. These schemes were not accepted as they tended to adversely affect certain interests and also due to the fact that the outbreak of the Korean war changed the situation. The prices of lac began to rise again and continued to do so until 1952 when the lac trade again faced a severe slump.

Meanwhile two other committees viz. Export Promotion Committees and the Committee on State Trading were appointed by the Government of India during 1949-50. The objective of the Committees were to suggest measures to step up exports,

and investigate the possibilities of foreign trade in lac being brought under state sector respectively. Both these Committees commented on the lac trade. The Export Promotion Committee suggested banning of futures trade in shellac while the other Committee thought it wise to take up state trading in shellac only after the state trading body had gained sufficient experience in other commodities.

The slump of 1952 affected the industry very severely leading to a large scale retrenchment of workers from seedlac/shellac manufacturing units. The earnings from exports which had remained over Rs.8 crores since 1946, and had attained a new peak at about Rs.14.85 crores during 1951-52, suddenly came down to Rs.7.4 crores in the following year. Bihar was the worst affected state. Demand from various interests in lac led to the formation of Bihar Shellac Enquiry Committee (B.N. Jha Committee) with a view to look into the problems of workers in shellac industry and also to investigate the causes of slump of 1952 and suggest ameliorative measures to prevent its recurrence. Though the Committee was constituted to look into the problems of workers in the shellac industry - its recommendations concerned the health of the wholesale trade

and industry. It drew the attention of the State to the speculative practices in the trade and suggested banning of futures market. Besides, in recommending regulation of lac marketing, it showed a good deal of faith in the market mechanism and pleaded for dual pricing at the terminal market - one for shippers and the other for exports or for shipments. This was based on the understanding that the "prices of manufacturing and cultivation stages are bound to adjust to the regulated selling price".

It further recommended formation of manufacturing association and Lac Board to replace Indian Lac Cess Committee with greater powers and enlarged functions. The recommendations of this Committees were discussed in a conference held in 1954 which suggested formation of Shellac Export Promotion Council and reorganisation of ILCC on the lines of the Tea Board. Yet another conference was summoned by the Central Ministry of Agriculture in June 1955 to take steps to increase production of lac under the five year plans. This Conference suggested that marketing of lac be organised by the Agricultural Marketing Adviser to the Government of India which was contrary to the recommendation of having one Lac Board to look into all aspects

of lac production. The most important step taken by the Government on the recommendation of the Bihar shellac Enquiry Committee was the banning of 'fatka', the futures trade in lac.

However, the period 1951-56 was that of relative prosperity for the lac industry and the realisation from exports averaged around Rs.10 crores per annum. After 1956-57 export earnings from lac again started declining and for the years 1958-68, it averaged around Rs.5 crores. It affected the industry in many ways. During this period exports showed a declining trend from about 27,000 tons in 1957-58 to 15,000 tons in 1967-68. This declining trend in lac exports and realisation from exports set in simultaneously with the Government of India declaring a Minimum Export Price (MEP) in 1958 for lac exports in order to check wild fluctuations in price that set in due to the unpredictable nature of the crop leading to speculation. Other objectives of the MEP were :
/(ii) to pass on the benefits of high and stable prices
(i) to hold the declining trend in prices/ to the growers which would stimulate them to increase production without a fear of worsening earnings. An important consideration in introducing the MEP was to have all the benefits accruing from it 'trickle down' to the cultivators in the form of better

prices and a more consistent demand for sticklac. If successful, by ensuring remunerative prices to the growers, it was expected to lead to increased utilisation abroad in the long run. However, though the objective of bringing down fluctuations in prices was achieved to a certain extent - as is shown by relatively consistent prices that ruled during 1958-68 as compared to comparable period in the past - the objective of passing on the benefits to growers of lac remained far from being achieved.

Kirloskar Consultants study emerged as a part of a series of action oriented surveys by the USAID Export Promotion Division under a programme entered in with the Ministry of Foreign Trade. The study was started in 1969 and the Report was submitted in 1970. The survey recommended that in order to improve the export potential of lac, the MEP must be made flexible to respond to market influence, an expanded programme of R & D be developed to allow shellac to complement rather than merely compete with the use of synthetics in important commercial uses, creation of warehousing facilities in India and modernization of the production process.

During 1968-69 to 1970-71 the realised value of exports averaged around Rs. 5 crores though the quantity showed a decline - showing an increasing trend in prices which further picked up during the following year and continued to rise in the wake of the international oil price hike until it reached its peak in 1974-75 which was about ten times the 1970 price level. The total annual proceeds from exports during the period 1970-71 to 1974-75 increased from about Rs.5 crores to Rs.24.3 crores. However, the decline in the quantity of exports adversely affected the cottage and small seedlac and shellac processing units, who lost business in competition to the larger manufacturers. Many had to close down and during 1973-74 only about 100 small manufacturing units could remain in business. Similarly, the growers could not reap the due benefits of high earnings from exports because they did not get adequate share in the increased international price of shellac. The number of units which suffered due to price hike leading to curtailment of the quantum of exports was ^{reported to be} very large. This fact, along with the neglect of the growers' interest led to formation of a Sub-Committee with the objective of suggesting ^{added} "measures that would satisfy (emphasis /) the growers, the

upcountry cottage units, the exporters and all those associated with this commodity".

It was also called upon to suggest steps needed in order to rationalise and stabilise the price structure and recommend a non-fluctuating price for the lac growers. The Committee recommended two main measures to be adopted in order to achieve the objective, viz. (a) the Price Support and Buffer Stock operation and (b) a uniform Act by all the lac growing States fixing a statutory price for the growers of lac. It also suggested enlargement of the internal consumption base of lac by identifying the most promising areas for large scale use of lac.

The buffer stock and support price policy was initiated by the Government of India in 1976 in order to give the growers a declared support price. At the same time, canalisation of exports by STC was started to mop up extra profits in exports.

* This was accepted by the Sub-Committee as well. As it observed - "The Committee is happy that the government has gone into the current situation where supply abegged demand and the gap between the local price and the floor price went alarmingly high and social tensions were mounting up".
(Report of the Sub-Committee on Lac) 83-11/50 . 3.1.83

Though the scheme will be discussed in detail elsewhere (in the Chapter on lac marketing), presently we shall make a reference to some important issues that cropped up during its implementation. As mentioned earlier, the rise in price of shellac/seedlac during 1973-75 had mainly benefited big manufacturers and exporters and a large number of small and cottage units alongwith growers of lac were either adversely affected or could not receive an appropriate share of the profits. The policy could not succeed in achieving its objectives* as is clearly brought out in a note towards the evaluation of the policy prepared by the Commerce Ministry. This note advanced a number of reasons for the inability of this policy to succeed. Important among these were partial canalisation and buffer stocking, lack of coordination among various agencies engaged in the task, difficulty in identifying the real growers, lack of infra-structure for procurement of lac, the technical conditions of the commodity, a strong buyer - sheller relationship and brand names giving a peculiar feature to the trade, a lower level of world demand etc.

The above review of the policies pursued since the beginning of the twentieth century brings out one point very

* See the Chapter on Lac Prices, Marketing and Impact of Public Policy.

clearly that though the policies have changed in their emphasis from time to time - according to the then obtaining situation or the type of crisis that gripped the trade - from increasing production, elimination of fluctuations in prices, to standardisation of grades, quality control etc. During the British Raj the major thrust of these policies seemed to have been to ensure a cheap and stable supply. After Independence, it yielded place to protecting and promoting of foreign exchange earnings. The growers' perspective, except occasional verbal sympathy, has been largely missing. Even if a casual mention of the grower and his problems is made, it is in the context of his acceptance of the improved practices of production or his being made an instrument of increased lac production*.

* How the objective of export earnings squares with the interests of the manufacturers-exporters comes out clearly in the pleas made by the representatives of this group of interests in their meeting with a Study Team on Lac of Commerce Ministry in June 1978. It was pointed out by them that "the well-being of the growers is directly linked with prosperity of export trade" and fervent plea was made that "please don't underemphasise the export aspect." It was also admitted that "little concerted effort has been made in the direction of developing internal market for lac".

The absence of growers' viewpoint from the lac policies is well illustrated by the fact that no data on the prices received by growers are available and it was only during the latter half of 1978 that the Directorate of Lac Development started reporting growers' prices as well. In tracing the development of policies concerning lac historically, one observes that arising out of some immediate crisis faced by the industry/trade, these policies have remained partial and ad hoc in nature and have ignored the socio-economic and institutional aspects of the lac production and marketing process. It showed little appreciation of the relationships between man, environment and technology which form the totality of social production. Also that most of the policies that were prescribed so far either could not be given a follow up owing to certain external factors and/or due to the inner mechanism of the lac trade leading it into the present situation, whereas some others could not be followed up or implemented successfully as they threatened to affect the interests of the powerful and organised segments of lac trade and processing.

claimed to be

As lac has been essentially an export commodity since the beginning of 19th century, most policies gave primacy to export promotion which has acted largely as a means of benefiting the exporters and manufacturers. In other words, the health of the industry and welfare of all those associated with lac trade have been equated with its export performance. So much so that some of the policies (like licensing of traders) that could have brought about some change in the structure of lac trade could not be taken up. Further - there has been close-knit long standing buyer-seller relationships (including various kinds of collaboration with foreign buyers) and brand name advantages for a few big exporters - manufacturers which offer them certain decisive advantages over other interests in lac trade, processing and exports. As we shall see, their relative share in the unit value realised from exports is much higher than ~~that~~ of any other interests. The impact of fluctuations either in value or in volume of exports hits them in the least as compared to other interests. Despite such high stakes in lac, these big manufacturers have done precious little by way of opening up and expanding internal sources of demand which is something fairly natural to expect

a producer to do in the face of uncertain and fluctuating outlets. Thus, in brief, adhocism, dominance of the long chain of the activities connected with lac by its narrow apex (manufacturer - exporters) and excessive emphasis on overall export earnings without much clear and explicit concern for the internal linkages of exports have led to very limited concern being shown for the interests of the growers. In fact, the importance of lac for income and employment generation for the poor growers (mostly tribals) and internal processes of socio-economic development which could be based on lac is something which is yet to be sufficiently realised.

CHAPTER - IV

LAC PRODUCTION : TRENDS AND PROBLEMS

Lac production has shown great deal of fluctuations over time. During 1931-32 the total production of lac in India was reported to be about 33 thousand tons and it has fluctuated since between 24 thousand tons ('53-54) to 65 thousand tons ('46-47). However no distinct pattern other than that of a secular decline in its production is discernible. Lac production is generally believed to be affected by weather conditions. Weather conditions, like annual rainfall, distribution of rainfall over the year, occurrence of hail, frost and incidence of pests affect lac production. Sufficiently exhaustive time series data on this score are difficult to come by. However, scientific opinion considers lac production susceptible to these influences. The declining production trend (Table 4.2) is shown by the quinquennial averages for production as well. For the last three years ending 1977-78, the average production amounts to about 21 thousand tons. During these few decades when national income and production of almost every product has gone up fairly substantially, in lac we have a product whose five yearly average production figures since 1956-57 show that it has consistently declined from over 45 thousand tons

during 1956-61 to about 22 thousand tons during 1971-76. The next three years upto 1977-78, show a further cut back in production by another one thousand tons. (See Tables 4.1 and 4.2; also graph no. 1)

may be considered

What / alarming is that this decline has been fairly consistent since late 1950s as is evident from the five yearly averages even though the fluctuation has been of a very high magnitude - ranging between the peak of about 52,000 tons in 1960-61 to a little above 17 thousand tons in 1972-73. The lowest crop level is expected in 1978-79 and the figures for the first six months show arrivals of 10,000 tonnes of sticklac only for a period which normally accounts for about 75 percent of the yearly arrivals. During the period 1969-78, the average level of lac production declined to about 23,000 tons and the maximum and minimum level of production were achieved in two consecutive years - 1971-72 and 1972-73 when the total production was reported to be 27,212 and 17,038 tons respectively.

The decline in production of lac in India has to be seen in light of the world offtake of lac in various forms.

The world offtake of lac has shown a consistent decline - from about an average of 40,000 tons (in sticklac equivalent terms at 61 per cent* recovery rate) during 1956-64, to about 24,000 tons during 1964-69, about 17,600 tons during 1969-74 and about 12,000 tons in the last quinquennium. The highest and the lowest level during this span of 20 years have been 53,000 tons in 1960-61 and 17,000 tons in 1972-73 respectively. This decline has been brought about mainly owing to the autonomous development of synthetic resins developed by big petro-chemical companies with sophisticated technology and marketing strategies etc. rather than unstable supply and wide fluctuations in prices of shellac as is generally believed in the lac trade circles. However, availability of alternative resins, uncertain

*We have accepted an average rate of 61 percent of recovery of shellac from sticklac as against the rates varying from 42 to 50 percent which are generally used in Government and trade circles. It was found that exports in sticklac equivalent terms exceeded the given production figures in the corresponding years consistently since 1931-32 to date even after imports from Thailand are taken into account. (See Table 4.3). The rate of 61% recovery has been arrived at from the discussion note appended to the Report on Lac : Procedures & Prospects : Management Development Institute, New Delhi, 1978. Even according to scientific opinion, the conversion rate is suggested to be between 60 to 70 percent.

supply prospects, fluctuating price level and lack of after sale services do make an adverse impact on the demand for lac.

Production and exports of lac both show a downward trend over a fairly long period of time. This declining trend, along with seasonal and yearly fluctuations in production is often taken to lead to loss of demand. It is often suggested that "the market was lost because of short supply at frequent intervals". What is implied is that the declining size and unpredictable variability of supply have acted as constraints on the buyer's inclination to go in for lac products on a long-term, stable basis.

It is true that fluctuating production acts as a damper on the sustained demand for any product. However, if production were to act as an important factor behind declining exports, one would expect to find a fairly close approximation between the level of production and level of exports. More so, if the domestic demand for the product in question is taken to be not only small but fairly inelastic.

* Observations of the Secretariat of SEPC on Current situation of lac trade, 1977. (Typed) p. 4.

If supply constraint was crucial or relatively more powerful than the demand factor, it would be expected that the years in which the supply constraint was not restraining, (i.e. during years showing rise in production), the level of exports would pick up. However, we find that while production of sticklac increased sharply over the period 1955-56 to 1967-68, the level of exports did not pick up proportionately as can be seen in the declining share of export equivalents of sticklac in total production from about 90 percent during 1965-66 about 61 percent during 1967-68. On the other hand, while production declined in 1968-69, exports increased, bringing the latter to over 92 percent of production. A look at Table 4.4 will bring out more evidence of this kind.

If we look at the comparable figures for production of sticklac and exports in terms of sticklac equivalent (see Table 4.4), we notice that from 1965-66 to 1970-71, except for 1967-68 when exports were 61.6 percent of production, in all the other years, the proportion of exports is generally around 85 percent or so of total production, except in two years when it goes up to 92 and 105 percent. This proportion starts declining from 1971-72 and over the last few years has

been around 50 percent and less. What one can infer from these facts are the following :-

- (a) though it is possible to build-up inventories of lac products, there are limits to its extent owing to the limited shelf life of various lac products. Hence over the seventies, it does not seem reasonable to assume that domestic consumption of lac is either very low (around 10 to 15 percent of total production) or is fairly inelastic. If one just cumulates the excess of production over exports for a period of 2 to 3 years, one can see that the figure would be a really formidable one to put a question mark on the often drawn inferences about the domestic utilisation of lac. A more specific investigation is needed to ascertain the precise size and nature of domestic use of sticklac and the form and manner of domestic supplies. This is especially important if one has to encourage (and we think correctly) the domestic market for the lac products.
- (b) Since over the last couple of years exports have come down to as low as 45, 47 and 51 percent of total production, it would be naive to believe in the oft-

repeated assertion that uncertain and low level of external demand arises from the supply constraints. Just as production level can be held responsible for declining exports, one may reasonably well turn the tables the other way round and hold declining exports responsible for the fall in production.

- (c) Given the position mentioned in (a) and (b) above, there appear to be prime facie reasons to believe that exports of lac are coming down owing to some other structural (like the degree of concentration of processing and exports in a small number of firms which may have many ways to protect and promote their interests without increasing the physical volume of exports or searching for outlets in domestic markets), technical, exogenous and autonomous (like the advance in the petro-chemical technology leading to the emergence of synthetic resins) factors. Policies concerning the protection and enlargement of the market for lac products have to correctly identify such factors and base the policies on them rather than believe in some superficial and non-substantiated

explanations like the restraining and inimical effect of the supply factor on lac exports.

World lac trade is the duopoly of India and Thailand. Hence fluctuations in Thai production and exports cannot but influence the prospects for Indian lac and vice-versa. As we have seen, the decline in the world consumption of lac products is the main factor behind the decline in its production in India. The sharing of the decline in world offtake of lac between India and Thailand does not show a clear pattern. During years of increase in world demand, there have been occasions when the Indian share increased vis-a-vis the Thai share. However, the years showing the contrary i.e. greater share of the increased world offtake going to Thailand are more in number. Between 1960-61 and 1975-76 there were eight years when there was a positive change in world offtake of lac over the previous year and it is only during 1974-75 and 1975-76 that India captured almost the total increase in world demand.

The Indian share in the increased world offtake was 102.9 percent in 1974-75 and 96.1 percent in 1975-76. However during the other six years, Thailand improved its share

vis-a-vis India. In four of these years India showed a negative change implying that not only India could not share the increased world off take but it lost the market as compared to the previous years. On the other hand, in the years of decline in world off take over previous years, during three years India improved its position with respect to previous year. The bulk of decline was concentrated on Thai exports. However in four years India shared the loss of world market with Thailand and during two of them the whole loss of market was born by India. Such a complex situation showing no clear cut pattern in sharing the change in the world demand of lac basically arises from fluctuation in production level in both the countries*. Under such fluctuations of production in both the countries a consistent pattern in sharing of the market is not discernible and competition exists only to an extent and its importance can be considered exaggerated.

* Five yearly average of production of lac in Thailand show that beginning with 1959-60 - 1963-64, the production has shown the average of 15,000, 10,000 and 11,000 for the successive five yearly periods. However, fluctuations have been very wide ranging e.g. during 1969-70 the production fluctuated between 1,000 tons to 20,000 tons, in the preceding five year period the fluctuations ranged between 2,000 tons to 20,000 tons. Indian production, relatively speaking, has been more consistent in yearly fluctuations.

During two years of oil price hike (i.e. 1973-74 and 1974-75), the world off take of lac declined and touched its lowest level. During 1973-74 when the world demand declined, India shared it with Thailand by losing only about half of the reduced demand (share being 34.7% and 65.3% for India and Thailand, respectively). During the following year India improved its position and it not only accounted for the total increase in world demand but it marginally cut into Thai-market as well, as is shown by its share in the change in world demand of 102.9 percent.

The sharing of world market and the role of competition from Thailand can be understood only when one looks at the composition of exports from the two countries. It is not a simple case of duopoly as the products that the two countries export are different both in nature and quality, making substitution a near impossibility in the short run as those importer-producers whose machinery and equipment are suitable for Thai seedlac can not easily and immediately switch over to other kinds of seedlac coming from India. Superior quality of Indian lac over Thai lac is a well known fact and needs no specific mention here. However, the composition of exports

of two countries that is shown in table below-points out that the main export from Thailand has been that of seedlac even though it entered the shellac market by establishing shellac manufacturing units in 1965-66. The shellac exports from Thailand however never picked up and throughout the period 1967-68 to 1972-73 the exports of shellac from Thailand ranged between 13 tons to 43 tons only. During the two years of oil price hike Thai shellac exports went upto 341 and 306 tons respectively which again declined to 170 tons in the subsequently year (1973-76). The share of seedlac in Thai exports and that of shellac in Indian export is shown in Table below:-

YEAR	Percentage share of Shellac in Indian lac exports (in terms of volume)	Percentage share of Seed-lac in Thai lac exports (in terms of volume)
1965-66	85	84
1966-67	79	74
1967-68	75	68
1968-69	73	80
1969-70	77	70
1970-71	79	74
1971-72	78	90
1972-73	87	96
1973-74	85	93
1974-75	95	96
1975-76	96	97

Source: The same as in other Tables given at the end of the Chapter.

The table shows that whereas India is exporting more than 90 percent of lac in form of shellac, more than 90 percent of Thai exports are in terms of seedlac. It also shows that there has been an increasing degree of specialisation in both the countries in their exports and such a level of product differentiation reduces the possibilities of competition. Hence it can be concluded that the role of Thai competition to Indian lac may be somewhat overstated.

State-wise production of sticklac in India is shown in Table 4.5 (Also see graph nos. 2 and 3). The Table shows a significant change in the relative share of States in lac production in 1970s. Share of Bihar which was at an average of 54.8 percent of the all India production in 1960s, fluctuated between 43.4 percent to 66 percent of the all India production during 1970s. In absolute terms the fluctuation in production of lac in Bihar ranged between about 7,400 tons in 1972-73 to 16,200 tons in 1971-72. During the period of price rise (1973-75), the share of Bihar had fallen to about 49 percent of all India supply of sticklac. However, its share has shown an improving trend since 1974-75.

The next most important state in terms of quantity of sticklac production is Madhya Pradesh which contributed above one-fifth of all India production during 1960s. During 1970s also, its average share has remained the same. However, a decline is discernible in its production level which has come down from about 6,300 tons in 1971-72 to about 3,200 tons during 1977-78. West Bengal which contributed about 9 percent of the total production during 1960s has also more or less maintained its share during 1970s. Thus the picture of state-wise production of lac is that of most states maintaining their share in the total production, though with yearly fluctuations.

In Bihar, the districts of Ranchi, Palamu and Singhbhum account for about 90 percent and above of total lac production (See Table 4.6). Palamau district has been the largest producer of lac during 1960s though its share during 1970s declined from about an average of 44 percent of total production in Bihar to about one-fourth. In contrast, Ranchi improved its share from 37.6 percent in 1972-73 to a little above half during last few years. In absolute terms, the fluctuations over time in Ranchi and Singhbhum have been relatively wider than those of Palamu. Whereas production in Ranchi varied

between about 2,800 tons in 1972-73 to about 7,800 tons in 1976-77 and in Singhbhum from about 964 tons in 1972-73 to 1,740 in 1974-75. Production in Palamu varied between 33,000 tons in 1972-73 to 4,600 tons during 1974-75. During 1960s also the fluctuations in the relative shares of the three districts were ranging between 43 percent of Indian lac production to about 58 percent whereas in quantity terms it ranged between about 16,000 to 22,000 tons. The share of Singhbhum among the three districts was about one-sixth of the total production. Lac production in Ranchi has fluctuated between 15 percent of Indian production (in 1964-65) to 30 percent (in 1967-68) and in quantitative terms the same was about 10,000 tons to 25,000 tons. Similar fluctuations are visible in case of Palamu as well - however the share of Ranchi and Palamu taken together has been consistently around 40 percent of the national production - implying thereby a complimentary movement in their production levels.

These changes in the relative share of the three districts and fluctuations in the absolute level of production have various implications for the regional economy, more particularly for the growers of lac. Apart from uncertainty

about the supplementary income from this subsidiary source of income, unstable level of production creates problems for investment and development of processing facilities in the districts. A dovetailing of lac production level and processing capacity in a district becomes difficult when the level of production keeps fluctuating. Reduction of unnecessary intermediaries requires a scientific programme of location of processing capacities in and around the centres of production and collection of lac (secondary haats). This is all the more important if policies of vertical integration of lac production and processing under the cooperatives of the lac growers are to be pursued. But fluctuating level of production will pose a problem when the growers cooperatives will have lac production by its members either in excess or short of processing capacities. Apart from measures for stabilising production (e.g. through stable remunerative, statutory sticklac prices), it would also necessitate stabilisation and steady growth of demand, mainly based on domestic consumption of lac.

Cropwise production figures (Table 4.7) show that the Baisakhi crop accounts for something between 64 percent to 81 percent of total lac production. Next in importance in terms

of its share in production is the Katki crop which accounts for above one-fifth of the total produce. These two crops taken together contribute about 90 percent of total annual production. During 1970s production in Katki season fluctuated between 11 percent (1977-78) to 26.5 percent (1972-73) of the total produce of Bihar. Besides these, Jethwi and Aghani (Kusumi) taken together form less than 10 percent of the total produce in Bihar - though during 1970s its share ranged between 6 percent to 15.8 percent of Bihar production.

Since Aghani (Kusumi) crop is qualitatively the best one, planned efforts are needed to increase its relative share. This is important for many reasons like meeting the competition from synthetic resins, competition from Thailand and for the growth of internal demand. Moreover, the yield from Kusumi is higher than from other host trees. However, stable and remunerative prices hold the key to any such changes in the production pattern. Such minimum prices have to be somewhat weighted in favour of Kusumi.

The downward trend in the production of sticklac has serious implications for the growers and the economy of the region. It can safely be assumed that over 90 percent of the

households dependent on agriculture in this region happen to be growing lac as a subsidiary source of income*. Since the number of workers engaged in agriculture has increased from about 13 lakhs in the three districts of South Bihar in 1951 to 20.5 lakhs in 1971, it follows that the number of lac growers has increased by over 57.8 percent 1971, giving a total of about an average 18.5 lakhs persons engaged in growing lac. Assuming a rate of growth of 2 percent in population and constant dependency on agriculture, the number of lac growers may be expected in 1978 to be in the neighbourhood of 21 lakhs. Given the steep fall in the production of lac since 1951 and the present level of production accounting to about as low as 46 percent of 1951 production level, one finds a much steeper fall in per capita production of lac. Therefore, though lac continues to be a subsidiary source of income and employment, the contribution it makes to cultivator's income has come down very sharply.

On the other hand, the implications of increasing production of lac for the lac growers and the region are full of promise. If lac production picks up, not only the incomes and

* Out of our sample of 167 grower households spread over three districts, almost everyone was found to be engaged in lac growing.

savings of the growers would go up but secondary and tertiary effects of increased production (in terms of processing and industrial applications) would be very beneficial giving the growers greater independence from farming. In fact, it could well make for increased farm output through the financing of intensive input use from lac income. The significance of increased lac production lies in the fact that it can be obtained without diverting land from other crops.

For a very long period, a good number of programmes have been undertaken by various agencies for increasing and stabilising sticklac production. Broadly speaking, these programmes can be classified under three heads, viz., research, extension and supply of the means of increasing production.

As to research - it is mainly carried out by the Indian Lac Research Institute with the stated objective of evolving improved methods for intensive cultivation as well as for discovering new uses for lac and to develop means of quality control. The Institute is rated as a premier research institute for entomological research. However, extension of the researches conducted by the Institute has been rather poor. Mainly two schemes have been used in past for dissemination of

results of research to cultivators, viz. (i) Intensive demonstration Scheme and (ii) Extension of lac cultivation scheme for stepping up production and the schemes originated as early as in 1935 and 1948 respectively. A number of broodlac farms were set up under the first scheme. However, as the broodlac produced was costly enough for the growers, it could not get enough market. Besides - about a dozen schemes were launched by the Indian Lac Cess Committee between 1942 to mid '60s which cost about Rs. 17 lakhs over the period. Since the second five year plan a concerted effort to increase the production of lac and its productivity were taken up stressing the cultivation aspect and a number of broodlac farms were set up under state control. About Rs. 40 lakhs were spent on ILRI alone for entomological researches during the Third plan period.

During Fifth plan also a sum of Rs. 5 lakhs was allocated for the development of its production. Our enquiries reveal that the annual budget of the Indian Lac Research Institute is of about 14 lakhs per annum. Existing position of central sector developmental schemes on lac are shown in the

table below :-

CENTRAL SECTOR SCHEMES ON LAC DEVELOPMENT

YEAR	OUTLAY (LAKHS Rs.)	EXPENDITURE (LAKHS Rs.)	QUANTITY OF BROODLAC SUPPLIED (IN KGS.)	
			(BAISAKHI)	(KUSUMI)
<hr/>				
FIFTH PLAN				
1974-79	9.0	5.35		
<hr/>				
1974-75	1.61	0.71	1499	-
1975-76	1.62	1.33	1592	-
1976-77	1.72	1.61	1679	22.5
1977-78	2.03	1.70	1895	15.5
<hr/>				
1978-79	3.00	-	-	-

INDIA:

Source: Annual Reports of the Directorate of Lac Development, Government of India, Ranchi.

As a result of these researches, a number of important findings with respect of host trees, methods of plant protection, methods of better cultivation for obtaining higher yield have been developed which by themselves are quite important. They show the potential that has been created. However, the story of production that we have discussed earlier shows that in practice none of these improvements could check

the decline in lac production. Our actual field survey also shows that growers have not taken up the use of these researches and most of them are not even aware of the developments taking place by way of technical improvements.

As we shall show, powerful forces operating in the lac trade in matters of exports, pricing of sticklac, uncertainty of demand and dominance by a handful of manufacturer-exporters did not favour either the emergence of motivation or the availability of the means for increasing/improving production by the large army of growers. In this important activity, efforts by policies and programmes to increase production have to follow rather than precede a structural re-organisation capable of generating incentives and investments for the purpose.

TABLE : 4.1

Table showing triennial average production of
Sticklac in India 1960-61 to 1977-78

S.No.	Years	Average Production of Sticklac (Triennial)	Production Index
1	2	3	4
1.	1960-61 to 1962-63	44331	100
2.	1963-64 to 1965-66	23285	52.5
3.	1966-67 to 1968-69	32677	73.7
4.	1969-70 to 1971-72	25505	57.5
5.	1972-73 to 1974-75	20329	45.9
6.	1975-76 to 1977-78	22179	50.0

Source: Lac Statistics 1977, pp 3-4, SEPC Calcutta and
Lac Bulletin Annual No. 1977-78
Directorate of Lac Development, Govt. of India,
Ranchi.

TABLE : 4.2

Table showing quinquennial average production of
Sticklac in India 1960-61 to 1977-78

S.No.	Years	Quinquennial Average Production of Sticklac (M. Tons.)	Production Index
1	2	3	4
1.	1960-61 to 1964-65	35880	100.0
2.	1965-66 to 1969-70	29253	81.5
3.	1970-71 to 1974-75	22551	62.9
4.	1974-75 to* 1977-78	22179	61.8

Source: Lac Statistics 1977, pp 3-4
SEPC, Calcutta.
Lac Bulletin (Minco) and Annual No. 1977-78
Directorate of Lac Development, Govt. of India,
Ranchi.

* For three years only.

Table-4.3

AVERAGE FIVE YEARLY PRODUCTION, EXPORTS AND EXPORTS IN STICKLAC
EQUIVALENTS AT 42 PERCENT AND 61 PERCENT RATE OF RECOVERY OF
SHELLAC FROM STICKLAC

Year	Production of Sticklac	Exports of Lac (all kind)	Exports in Sticklac at 61% Recovery	Equivalents at 42% Recovery	Imports of Sticklac	Excess of Production Over Exports at 61% Rate of Recovery (2+6)-4	Excess of Exports at 42% Rate of Recovery Over Production (5-(2+6))
1	2	3	4	5	6	7	8
1931-36	36308	27297	44750	64994	5333	-3109	+23353
1936-41	53294	35530	58246	84595	11657	+6755	*19654
1941-46	42662	22310	36572	53148	1557	+7647	+08899
1946-51	43195	28728	47095	68400	10213	+6313	+14992
1951-56	40119	31336	51370	74610	4842	-6409	+27649
1956-61	45107	27220	44622	64809	660	+1145	+19042
1961-66	30017	19969	37305	47544		-7288	+17527
1966-71	29470	15816	24567	37657		+4883	+ 8187
1971-76	21993	6849	13293	16307		+8700	- 6586

Source: 1. Lac Statistics 1977, Shellac Export Promotion Council, Calcutta.
2. Silver Jubilee Souvenir, India Lac Coss Committee, 1956.

Table-4.4

Export of Lac as a percentage of Crop
Position of Sticklac: 1965-66 to 1977-78

Year	Sticklac production (Tonnes)	Export of lac (all kinds) (Tonnes)	Export of Sticklac. equivalent (Tonnes)	(4) as a percentage of (2) (%)
1	2	3	4	5
1965-66	23476	13975	21073	189.8
1966-67	29672	15500	24753	83.4
1967-68	38779	15391	23879	61.6
1968-69	29597	17714	27391	92.5
1969-70	24742	16739	26049	105.3
1970-71	24560	13384	20865	85.0
1971-72	27212	13720	21412	78.7
1972-73	17038	7564	11948	70.1
1973-74	19259	5608	8833	45.9
1974-75	24690	7332	11725	47.5
1975-76	21766	7825	12548	57.6
1976-77	23869	7092	11347	47.5
1977-78	20900	6733	10774	51.6

Source: (1) SEPC - Statistics on lac at a glance: Pages 12-15, & Pages 3&4.

(2) Annual Report, 1977-78, Directorate of Lac Development, Ranchi.

Note:- Sticklac equivalent of exports of shellac and seedlac has been calculated on the basis of a conversion ratio of 0.62 and 0.72 from sticklac to shellac and seedlac respectively.

Table-4.5

ESTIMATES OF STATEWISE PRODUCTION OF STICKLAC
IN INDIA DURING 1969-70 to 1977-78

State	Year (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	Average 69-78 to 77-78.
Bihar	15,426 (59.9)	13,459 (54.8)	16,208 (59.6)	7,388 (43.4)	9,464 (49.1)	14,525 (58.8)	13,856 (63.6)	15,550 (65.2)	12,833 (57.5)	13,189.9 (57.5)
Madhya Pradesh	5,001 (19.4)	5,468 (22.3)	6,304 (23.2)	6,157 (36.3)	5,020 (26.1)	3,942 (16.0)	3,818 (17.5)	3,330 (13.9)	4,767 (21.4)	4,867.4 (21.2)
West Bengal	2,389 (9.3)	2,245 (9.1)	2,148 (7.9)	1,053 (6.2)	1,900 (9.9)	3,153 (12.8)	2,547 (11.7)	2,456 (10.3)	2,209 (9.9)	2,233.3 (9.7)
Maharashtra	683 (2.7)	1,064 (4.3)	859 (3.2)	944 (5.5)	485 (2.5)	158 (0.6)	97 (0.4)	129 (0.5)	428 (1.9)	538.6 (2.3)
Uttar Pradesh	1,042 (6.4)	1,978 (8.1)	1,344 (4.9)	1,064 (6.2)	1,866 (9.7)	2,389 (9.7)	1,060 (4.9)	2,000 (8.4)	1,620 (7.3)	1,662.6 (7.2)
Orissa	470 (1.8)	235 (0.9)	233 (0.8)	242 (1.4)	280 (1.4)	280 (1.1)	194 (0.9)	235 (1.0)	244 (1.1)	268.1
Other States	131 (0.5)	110 (0.4)	116 (0.4)	190 (1.1)	244 (1.3)	243 (0.9)	198 (0.9)	169 (0.7)	204 (0.9)	178.3 (0.8)
Total (Indian Union)	25,742 (100)	24,559 (100)	27,212 (100)	17,038 (100)	19,259 (100)	24,690 (100)	21,766 (100)	23,869 (100)	22,305 (100)	22,938.2 (100)

Figures in brackets represent percentages share of the state in the total production of sticklac.

Source: Shellac Export Production Council - Statistics on lac at a glance pages 5 and 6.

Table-4.6

ESTIMATES OF DISTRICTWISE PRODUCTIONS OF STICKLAC IN BIHAR (QTLIS.)

	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79 (April-September)
Average								
District								
Ranchi	57,620 (29.8)	27,806 (37.6)	37,705 (39.8)	57,736 (39.7)	70,665 (51.0)	78,464 (50.4)	71,246 (51.7)	31,765 (53.2)
Palamau	42,870 (19.2)	32,845 (44.4)	38,092 (40.2)	46,656 (32.1)	40,124 (29.0)	43,577 (27.8)	36,800 (26.7)	26,616 (44.6)
Singbhum	19,456 (8.7)	9,649 (13.0)	14,071 (14.9)	27,406 (18.9)	19,281 (13.9)	22,940 (14.7)	19,217 (13.9)	979 (1.6)
Bihar	1,12,330 (57.5)	73,884 (100.0)	94,645 (100.0)	1,45,252 (100.0)	1,38,527 (100.0)	1,55,590 (100.0)	1,37,901 (100.0)	59,718 (100.0)

Source: Fortnightly Circulars,

Directorate of Lac Development, Government of India, Ranchi.

Table - 4.2

CROPWISE PRODUCTION OF STICKLAC IN INDIA.
DURING 1969-70 TO 1977-78 (IN M. TONS)

.....

Year/Crop	Balsakhi	Jethuri	Katki	Kusumi	Total
1969-70	15,490 (60.17)	1,306 (5.07)	5,234 (23.05)	3,012 (11.70)	25,742 (100)
1970-71	17,356 (70.67)	709 (2.89)	5,487 (22.34)	1,008 (4.10)	24,560 (100)
1971-72	18,401 (67.62)	373 (1.37)	7,204 (26.47)	1,234 (4.53)	27,212 (100)
1972-73	11,598 (88.07)	457 (2.68)	4,031 (23.66)	952 (5.59)	17,038 (100)
1973-74	10,100 (52.44)	1,380 (7.17)	5,024 (26.09)	2,755 (14.30)	19,259 (100)
1974-75	15,928 (64.51)	1,422 (5.76)	4,842 (19.61)	2,498 (10.12)	24,690 (100)
1975-76	17,569 (80.72)	504 (2.32)	2,773 (12.74)	920 (4.23)	21,766 (100)
1976-77	16,485 (69.06)	873 (3.66)	4,604 (19.29)	1,907 (7.99)	23,869 (100)
1977-78	16,916.7 (80.94)	991.2 (4.74)	2,373.5 (11.36)	619.0 (2.96)	20,900.4 (100)
Average to	15,521.3 (68.11)	889.3 (3.9)	4,725.9 (20.7)	1,669.1 (7.32)	22,805.3 (100)

Figures in brackets represent percentages to total.
Source: Shellac Export Production Council - Statistics on lac at a glance pages 5 and 6.

CHAPTER - V

EXPORTS OF LAC PRODUCTS

We have already had occasion to refer to the declining trend alongwith fluctuations in India's exports of lac products, the impact of competition from Thailand and fall in the proportion of total lac output which is exported. In the present Chapter we bring out some of the features and problems of exports of seedlac and shellac, though an occasional reference to the points already discussed elsewhere cannot possibly be avoided.

believed to be

Lac is/largely an export commodity. Though data on internal consumption are not available in a reliable manner, yet the declining proportion of exports of lac products to total lac production (seen earlier Table 4.4) indicates that stock piling and internal consumption taken together must have relatively improved. Until about 1972-73, exports of lac exceeded 70 percent of the lac produced in the country. Currently also about half of the lac production is exported. Exports (in terms of sticklac equivalent of shellac and seedlac exported) during recent years have been around 7 thousand tons (since 1972-73), falling to a level as low as 5,608 tons in 1973-74, and going upto 7,825 tons in 1975-76.

In terms of export earnings, there are greater fluctuations than in terms of volume of exports, because prices too have been fluctuating. From the high of over Rs.24 crores in 1974-75 about Rs.6.55 crores were earned by during 1977-78. lac/. In the preceding year, exports earnings fell a little short of Rs.10 crores (Table 5.1 and 5.2)

Looking at long-run trends (see Tables 5.3, 5.4, 5.5 and 5.6 showing triennial, quinquennial and decennial average of quantity and value exports) one can see that from about 30,000 tons of average annual exports for the ten years ending in 1955-56, exports came down to about 23,000 tons during the ten years ending in 1965-66 and to about 12,000 tons during the ten years ending in 1975-76.

Export earnings over such long-periods in terms of current prices for each decade are not strictly comparable owing to the big changes in the price level during the period. During the decade ending in 1965-66 average annual export earnings amounted to Rs.5.72 crores, rising to a level of Rs.8.96 crores during the decade ending in 1975-76.

The divergent behaviour of the quantum of exports (as also of production of sticklac) and the value of exports

is important for understanding the basic problems of economic activities centering round lac. While the volume of exports and production have come down substantially, export earnings as well as unit value realisation from exports have gone up. Since sticklac prices did not increase adequately to compensate for the fall in production and exports, the total income derived from lac by the growers declined comparatively.

As seen earlier, during this period the unit value realization from export has increased. However, the sticklac price as a percentage of unit value realisation from shellac has been declining and in 1975-76 was as low as 27.3 percent. Thus the exporters gained even when the quantum of exports fell, but the growers, who lost in absolute terms because of fall in exports and production, lost further owing to receipt by them of a small proportion of export's unit value realisation*. Thus, the incompatibility between the interests of the growers (a very large number of rural poor) and a handful of exporters comes out vividly. The latter can get a good

*As seen earlier, the manufacturer-exporters have been claiming a direct co-relation between export-performance and prosperity on the one hand and the welfare of lac growers/ The facts of the case ^{do not support} the existence of such co-relation.

on the
other.

return even when exports fall. But the growers as also the workers and small units engaged in lac processing (but not engaged in exports) lose by a reduction in the volume of exports.

The inherent motivation of the big manufacturer-exporters makes them look for returns in financial terms, while reduction in physical volume of exports adversely affects the growers of lac and workers of lac factories. As we shall see later, this situation entails important policy implications with respect to the organisation of lac exports in order to accord adequate primacy to the interests of growers and workers which are related both to the volume and value of exports. It also suggests that protecting and promoting export earnings is not only an inadequate objective for policies concerning lac but, in certain situations, like in case of divergent movements in the value and volume of exports, may well be unfavourable to the interests of lac growers, small processors and workers engaged in lac processing. The objectives of policies relating to lac, therefore, must be directly and specifically related to the wellbeing of the growers and

increasing exports earnings must be considered a means to that end. This is important in view of the fact that increased value realisation from exports does not necessarily and automatically trickle down to the small processors, their workers and growers. As we shall see, many policies like MEP and giving a good price to exporters based on the assumption of such a trickle down have in the past proved counter-productive.

The share of lac in India's export earnings used to be a fairly reckonable factor upto 1960's. In 1960-61, lac export earnings contributed about 0.62 percent of the total export earnings (See Tables 5.7 and 5.8). Since then, India's exports have increased manifold, while earnings from lac exports have not been able to keep pace. The foreign exchange earned by lac during 1976-77 amounted to only 0.12 percent of the total Indian export earnings. Even when export earnings from lac reached on all time high of over Rs.24 crores in 1974-75, lac's share in total exchange earnings remained at 0.74 percent. In 1950-51, lac ranked the eleventh product in commodity-wise export earnings. In 1970-71, its ranks became thirteenth.

What follows from the above is that with the diversification of India's exportable commodities, the importance of lac is no longer what it used to be when the Indian export basket was less diversified. In the present situation, many new and more dynamic commodities are making their appearance on the export front. While it does not follow that efforts, therefore, should not be made to give greater stability and dynamism to exports of lac products, it may be inferred that the contribution of such efforts to our total export earning cannot be of decisive importance. On the contrary, the implications of the export performance of lac are far more material for income and employment in the lac growing region of South Bihar. Hence primacy in lac policies belong not to export earnings as such, but to the income and employment impact of lac based activities.

An analysis of the gradewise export of lac from India from 1965-66 to 1976-77 (Table 5.9) shows that the percentage of shellac in total exports has risen from about 75%^{in late sixties} to over 90%^{in mid seventies}. Simultaneously, the percentage of seedlac in total exports has fallen from about 15% to less than 5%. This is

because the market for Indian and Thai seedlac is common. While Thai seedlac is cheaper but poor in quality; the Indian seedlac is costlier but better in quality.

The countries with advanced chemical technology like USA, UK and W. Germany have developed methods for utilizing the cheaper Thai seedlac and these countries being the major importers of seedlac have invariably relied on Thailand for meeting their needs while the demand for better quality high priced ordinary seedlac has gone down. Over a period of 10 years, from 1958-59 to 1968-69, Thailand has almost trebled the exports of seedlac, while India's volume has decreased to one-fourth of its 1958-59 level.

In shellac, major types in demand are handmade, machine-made and other special shellac like bleached shellac and dewaxed shellac. The preference for a specific type depends on the end-users in different parts of the world. Hence it becomes a different problem to plan the domestic production of shellac according to the demand pattern obtaining in foreign countries. The pattern of exports has shown an increasing preference for machine-made shellac as compared to handmade shellac. While the share of machine-made shellac has increased

from about 50% to about 70%, the share of handmade shellac has fallen from 50% to 30% (See Table 5.10).

Such a shift is also seen in the production of shellac and is mainly due to a difference in the cost of production. Also, in the USSR and other East European countries machine-made shellac is preferred because of its greater uniformity. However, in other countries like USA, UK and W. Germany, hand-made shellac is preferred for its properties of colour and flow.

India has been importing sticklac/seedlac from Thailand for processing and exporting worth about Rs.10 lakhs until 1968-69, when a ban was placed on the import of Thai lac. After a gap of many years an ad hoc licence was granted for Rs.30 lakhs of import from Thailand in 1972-73, thus resuming the imports of sticklac/seedlac into the country. Full utilization could, however, not be made during the year as buyers from the US, Japan and W. Germany had lifted the available raw material from Thailand before we could enter the market. As a result, India's processing role was taken over by other countries, mainly Japan, which have a more developed refining know-how, and has started helping set up processing units in Thailand.

The rights and wrongs of the 1968-69 ban on imports of seedlac from Thailand apart, the decision to resume the imports for purposes of re-exporting shellac made from the imported seedlac does not seem to be justified. As we have seen, our exports have not suffered on account of supply constraints of sticklac/seedlac. On the contrary, the proportion of our output which is exported has steadily come down. We have also referred to the serious income and employment loss implications of fall in exports. Hence our exports of lac products must be based on internal supply of raw materials. We have pointed out the relatively secondary role of foreign exchange earnings from shellac vis-a-vis the objective of generating income and employment for the lac growers and processors. Imports of seedlac in the face of accumulating domestic stocks and declining proportion of production entering exports cannot be supported.

India exports lac to more than ninety countries. The country-wise exports of lac products from India, both in quantity and value, and percentage share of each in the total, are given in Table 5.11.

It can be seen that U.S.A., U.K., West Germany and U.S.S.R. are the major customers for Indian lac products.

In 1958-59, the U.S.A., U.K. and F.R. of Germany together contributed 74 percent of our export earning from lac. Over the last decade, the proportion is generally around 40 percent only. It shows that the U.S.S.R. and East European countries and other countries of the world are buying relatively larger quantities of our exports. The three major traditional importers of Indian lac products imported in the past a good quantity of Indian seedlac which lately they tend to buy mainly from Thailand. These countries have a good shellac processing capacity and advanced technology for the purpose. They also re-export shellac to the rest of the world; many countries buy from them for want of direct shipping services from India and the small size of their purchases. Many West European countries like France and Spain and Latin American countries too have shown good demand for Indian shellac. In sum, while export earnings from the U.S.A., U.K. & West Germany have declined, with other Western countries and Latin America showing stable level, the East European countries and other developing countries, including African ones, have increased their off take of Indian lac products.

One feature of the export trade which has almost entirely escaped general attention is its high degrees of concentration in the hands of a few manufacturing-exporting firms. The performance of major export houses for seedlac and shellac from 1972 to 1977 is presented in Table 5.12. Of the 12 top exporters, seven are manufacturer-exporters and five are merchant-exporters. These trader-exporters have, on an average, for the years 1972 to 1977, accounted for over 88 per cent of the total exports in this period. The rest of over 11 per cent is exported by about 48 small firms. This would indicate concentration of the trade in the hands of only a few large lac business houses.

(2) The share of the seven manufacturer-exporters in this is about 80 percent of the total while the share of the five merchant-exporters is only over 11 per cent. Thus, the bulk of the exports are effected by the manufacturer-exporters rather than by the merchant-exporters. This would imply a very high degree of vertical integration around the terminal stages of seedlac/shellac marketing.

(3) Further, one finds that the three major manufacturer-exporters, namely, Achhruram Kalkho & Co., Angelo Brothers Ltd.,

and Samar Singh Jaiwal Pvt. Ltd., have been consistently accounting, on an average, for 60 percent of the exports during the period under review. This means that three-fifths of the export of lac is confined to three large firms, who have dominated the yearly export figures.

(4) The share of the top seven exporters (all of whom are manufacturer-exporters, except Bhart Laxmi Trading Co. P(Ltd.)) has been about 80 per cent of the total.

(5) Another important feature of the market structure brought out by the table is that for the whole period the percentage share of the different big firms change within narrow ranges. The general picture that emerges is almost the same for all the years, showing the absence of any change amongst the dominant traders. There is also the absence of any tendency of a fall in the share of the largest exporters or any increase in the share of the smaller ones.

The implications of such concentrated structure on the marketing and price mechanism of the trade would be far reaching and highly meaningful. We have already seen the divergence between the volume and value of exports.

Similarly, the price of sticklac as a proportion of unit

value realisation from exports has also been observed to be declining. What comes out from these facts is that neither a fall in the volume of exports (as it is accompanied by increase in unit value and rising total export earnings) nor a declining proportion of exports to total market arrival of lac nor the big price spread between sticklac prices and unit value of exports disturb the position of the big firms. Many measures have been suggested for promoting the export of seedlac and shellac. But the big exporting firms have not, either individually or jointly, taken up any of these measures. In fact, the lac trade is characteristised by very strong supplier - foreign buyer link and brand name image*.

Just to take an illustration, we see (Table 5.13) the share of Achhruram Kalkhof & Co. Ltd., in total Indian exports of lac products to Germany and the share of the company's exports to Germany to its total exports for the period 1972 to

*Shellac is a branded product, sold on established brand names and not a commodity which can be sold by any party. STC was unable to expand export market due to the brand preferences, a traditional close-unit buyer-seller relationship which exists in markets of Germany, USA and South East Asia". pp. 15-16 LAC (Govt. of India, Ministry of Commerce, an Internal Note).

1977. One finds that while almost the entire seedlac exports to Germany are from this company, even in shellac the share is noticeable. When their share in 1975 comes down to 18.8 per cent, it happens in a year when the company's share in total exports declines from about over 25 per cent level to just under 10 per cent. It is also well known that this company has close links with M/s. Kalkh of Funfh Letcisen & Stroever, a West German Company which is the biggest European shellac unit and the only manufacturer of high grade lac.

Given the fact that the big firms have assured markets, that the fall in the volume of exports does not necessarily mean reduced earnings for the big exporters and may, infact, increase their earnings, one can see an inherent conflict of interest between the large body of sticklac growers and a handful of big manufacturer-exporters. A look at the rated capacity of shellac production of these big units will further bring out the role of concentration in lac production and exports.

According to figures given by the Shellac Export Promotion Council in a Note, the rated capacity of shellac manufacturing by the three big units is as under:

	<u>Rated Annual Capacity</u>	<u>(Metric tons of shellac)</u>
I	M/s. Angelo Brothers	8,000
II	M/s. S.S. Jaiswal (P) Ltd.	6,000
III	M/s. Achhruram Kalkh of & Co.Ltd.	4,500
		<hr/>
	Total	18,500 m.t.
		<hr/>

With the present export level at about 7,000 tons, which is about 37.5 percent of the rated capacity of the big three, one can see that the manufacturer-exporters will have a dominant place in lac trade and not much scope will be left for the small and medium manufacturers in the area of export.

On the basis of our analysis so far, it is possible to see a certain conflict of interests between the big manufacturer-exporters on the one hand and the large number of sticklac growers, the small manufacturers and their workers on the other. The way in which the big ones protect and promote their interests adversely effect the interests of the growers, cottage manufacturers and workers.

Many studies (notably Kirloskar Committee's Report) have gone into the factors behind the export performance. The Shellac Export Promotion Council keeps a continual watch on the export trends. A good deal can certainly be done to

improve the export performance. However, one basic snag in all the possible measures has been that a large number of these export promotion measures (like R & D for better quality, lower cost, use of inferior seedlac, use of waste material, better warehousing, technical after-sales services in the major consuming centres, discovering new uses, blending of lac with synthetic resins, etc.) are likely to cost a lot of money. The cost and specific mechanics of going about implementing these measures have not been worked out. Then, more important, it is not clear who will bear these expenses. If it is suggested that the government should bear these expenses and set up agencies for carrying it out, it will remain to be seen what social benefit will flow overtime from the commitment of public resources for these purposes.

In view of the structure of lac manufacturing and export trade which we have discussed in the preceding, we know that there is a highly concentrated structure of lac manufacturing and exporting. Export promotion measures on public account lead to enhanced foreign exchange earnings for the country. But in concrete terms, they mean so much more earnings for a small group of manufacturer-exporters and merchant-exporters.

While discussing production and prices we have seen that there is very little trickle-down process witnessed in lac trade. The benefits of increased export earnings and improved unit value realisation largely get stuck where they initially occur. Their backward linkages in terms of higher share for the growers rarely materialise. Attempts to take these benefits to the growers through buffer stock operations, partial canalisation and Maximum Export Price (MEP) policies, we have shown elsewhere, do not quite succeed so long as lac processing and exports continue to be dominated by a handful of firms. Costly export promotion measures, given the present structure of lac trade, will entail further enriching of those four big concerns who are even of their own doing quite well for themselves by lac processing and exports.

Can one make these private firms take up such costly, slow-maturing export production measures? Since the highly organised body of big manufacturers-traders (through Indian Lac Exporters Association, ILMA) are quite aware of these measures and yet have not shown any inclination to undertake these measures, it may be difficult to assume that voluntary

efforts of the manufacturer-exporters in this direction will be forthcoming. In fact, if there existed adequate motivation for undertaking such measures, not much external stimuli would perhaps be needed. Even the alternative of the government undertaking these measures and recovering the cost from the beneficiaries, through a cess or some other tax, does not seem feasible. For one thing it will disturb inter-industry tax parity. Then, it might provoke a gradual or, in some cases, even an abrupt withdrawal from this industry. But more important, even if the schemes of export promotion succeeded and were financed by the trade and industry, the interests of the grower remain uncared for. Hence if export promotion for imparting viability to lac growers and increasing income and employment from lac-based activities in the lac-growing region are the objectives, the concentration of shellac manufacturing and export in a few private hands cannot but be considered harmful.

TABLE : 5.1

Export of Lac (All kinds) from India

Year	Quantity in (Tons)	Value (Rs.Lakh)	Value Realisation per quintal
1	2	3	4
1963-64	20,655	462.24	222.73
1964-65	17,231	417.42	242.25
1965-66	13,975	426.66	304.33
1966-67	15,500	550.00	354.84
1967-68	15,391	515.00	334.61
1968-69	17,714	503.00	283.96
1969-70	16,739	478.00	285.56
1970-71	13,382	503.00	368.20
1971-72	13,720	661.00	480.60
1972-73	7,564	619.00	817.70
1973-74	5,608	1440.00	2567.10
1974-75	7,322	2433.00	3313.00
1975-76	7,825	1275.00	1630.00
1976-77	7,092	976.00	1375.70
1977-78	6,733	655.44	973.40

Source: Shellac Export Promotion Council, Calcutta,
Annual Report.

TABLE NO. 5.2

Quantity and Value of Seed Lac & Shellac export from India
(1965-66 to 1975-76)

Year/ Quantity	Seedlac (in tons)	Rs. (in lakh)	Shellac (in tons)	Rs. (in lakh)
1965-66	2047	49	10678	348
1966-67	3089	89	11026	418
1967-68	3860	104	10055	376
1968-69	4246	79	11218	380
1969-70	3718	75	11210	365
1970-71	2596	70	9144	388
1971-72	3351	122	9385	497
1972-73	997	76	5749	487
1973-74	944	134	4126	1141
1974-75	413	110	6693	2260
1975-76	326	32	7217	1208
1976-77	99.3	10.7	6963.3	960.6
1977-78	287.3	14.5	6333.7	638.7

Source: Shellac Export Promotion Council Calcutta Statistics on Lac at a glance 1977.

TABLE: 5.3

Table Showing share of Lac in total Exports
India on Triennial Average basis

Sl. No.	Years	Total Average Exports from India (Rs. Lakhs)	Total Average of Lac from India (Rs. Lakhs)	Lac Exports percent of total Exports %
1	2	3	4	5
1.	1960-61 to 1962-63	1,04,400	523.7	0.5
2.	1963-64 to 1965-66	1,26,800	435.0	0.34
3.	1966-67 to 1968-69	1,23,667	521.3	0.42
4.	1969-70 to 1971-72	1,51,867	547.3	0.36
5.	1972-73 to 1974-75	2,59,933	1,497.3	0.58
6.	1975-76 to 1977-78	1,71,440	968.7	0.57

Source: Economic Survey, Various Issues and Lac Statistics, 1977, pp.13-15, SEPC, Calcutta.

TABLE: 5.4

Average quinquennial export of lac (all kinds)
from India and average quinquennial value exports

S.No.	Years	Average quantum of exports (M.Tons)	Average value of exports (Rs.lakhs)
1	2	3	4
1.	1935-36 to 1939-40	34,443	174
2.	1940-41 to 1944-45	23,937	336
3.	1945-46 to 1949-50	26,425	327
4.	1950-51 to 1954-55	32,272	1,028
5.	1955-56 to 1959-60	27,568	804
6.	1960-61 to 1964-65	21,346	490
7.	1965-66 to 1969-70	15,934	493
8.	1970-71 to 1974-75	9,525	1,130

Source: Lac Statistics, 1977
SEPC, Calcutta, pp 11-15.

TABLE: 5.5

Average Decennial export of lac (all kinds)
and Average value of exports
1925-26 to 1975-76

S.No.	Years	Average Quantum of export (M. Tons)	Average Value of export (Rs.lakhs)
1	2	3	4
1.	1926-27 to 1935-36	29,237	415
2.	1936-37 to 1945-46	28,919	283
3.	1946-47 to 1955-56	30,031	1,009
4.	1956-57 to 1965-66	22,966	5,729
5.	1966-67 to 1975-76	12,114	8,966

Source: Lac Statistics, 1977
SEPC, Calcutta pp 11-15

TABLE : 5.6

Average Triennial export of Lac (all kinds) from
India and Average Triennial Value of Exports

S.No.	Years	Average Quantum of Exports (M. Tons)	Average Value of Exports (Rs. lakhs)
1	2	3	4
1.	1935-36 to 1937-38	33,634	184
2.	1938-39 to 1940-41	33,838	180
3.	1941-42 to 1943-44	22,414	342
4.	1944-45 to 1946-47	26,257	661
5.	1947-48 to 1949-50	25,199	863
6.	1950-51 to 1952-53	35,620	1,137
7.	1953-54 to 1955-56	27,795	967
8.	1956-57 to 1958-59	27,273	747
9.	1959-60 to 1961-62	25,053	557
10.	1962-63 to 1964-65	19,569	452
11.	1965-66 to 1967-68	15,072	495
12.	1968-69 to 1970-71	15,944	493
13.	1971-72 to 1973-74	8,971	905
14.	1974-75 to 1976-77	7,415	1,561

Source: Lac Statistics 1977, SEPC, Calcutta, pp. 11-15 and
Lac Bulletin Annual No. 1977-78,
Directorate of Lac Development, Govt. of India,
Ranchi.

Table - 5.7

Share of lac in total exports from India:
1960-61 to 1974-75

Year	Value of total exports (Rs.Lakhs)	Value of lac exports (Rs.lakhs)	(3) as a percentage of (2)
(1)	(2)	(3)	(4)
1960-61	1,01200	631	.62
1961-62	1,04100	461	.44
1962-63	1,08000	479	.44
1963-64	1,25000	462	.37
1964-65	1,28600	417	.32
1965-66	1,269000	426	.34
1966-67	1,153000	546	.47
1967-68	1,199000	515	.43
1968-69	1,358000	503	.37
1969-70	1,413000	478	.34
1970-71	1,53500	503	.33
1971-72	1,60800	661	.41
1972-73	1,97100	619	.31
1973-74	2,52300	1,440	.57
1974-75	3,30400	2,433	.74
1975-76	4,04280	1,275	.32
1976-77	5,14320	976	.19
1977-78	-	655	-

Source: Various issues of Economic Survey and Lac Statistics
1977, SEPC, Calcutta pp.10-11.

Table-5.8

Table: Commodity-wise composition of India's exports: 1950-51 and 1970-71 and place of lac in it.

.....

Commodity	1950-51 Value of Exports Rs. in Crs.	Percent of total	1970-71 Value of Exports Rs. in Crs.	Percent of Total
1)Textile Yarn..	418.4	44.4(I)	350.4	23.0(I)
2)Tea	126.9	13.5(II)	148.2	9.7(III)
3)Iron & Steel ..	-	-	90.6	5.9(V)
4)Machinery and Transport equipment	0.8	neg.	75.1	4.9(VII)
5)Leather and Lea- ther products ..	40.8	4.3(V)	72.2	4.7(VIII)
6)Other manufacturers (clothing, foot- wear etc.)	7.1	0.8	76.0	5.0(VI)
7)Chemicals	9.3	1.0(X)	36.4	2.4(X)
8)Tobacco and Tobacco manufacturers ..	29.1	3.1(VI)	32.6	2.1(XI)
9)Fruits and vegetables...	17.7	1.9(VII)	65.0	4.3(IX)
10)Sujar, coffee, spices cereals, etc....	47.7	5.0(IV)	193.8	8.7(IV)
11)Crude fertilizers, minerals, cress, oil- seeds, hides & skins	121.2	12.9(III)	280.6	13.7(II)
12)Minerals and fuels ...	9.2	1.0(IX)	12.6	0.8(XII)
13)Lac and Lac products ...	11.9	1.26(VIII)	5.4	0.33
14)Others	107.3	10.8	903.5	14.47
15)Total	947.1	100	1,535.5	100

Note: Roman letter in parantheses indicate ranking.

Table -5.9
Gradewise Export of Lac from India: 1965-66 to 1977-78

Year	SHELLACK			SEEDLACK			OTHERS			TOTAL		
	QTY. (TONS)	VALUE (RS. LAKHS)	PER- CENT OF TOTAL	QTY. (TONS)	VALUE (RS. LAKHS)	PER- CENT OF TOTAL	QTY. (TONS)	VALUE (RS. LAKHS)	PER- CENT OF TOTAL	QTY. (TONS)	VALUE (RS. LAKHS)	PER- CENT
1965-66	10678	348	81.7	2048	50	11.7	1249	28	6.6	13975	426	100
1966-67	11026	418	76.6	3089	89	16.3	1739	39	7.1	15854	546	100
1967-68	10055	376	73.0	3866	104	20.2	1475	35	6.8	15391	515	100
1968-69	11218	380	75.5	4246	80	15.9	2250	43	8.5	17714	503	100
1969-70	11210	365	76.3	3718	74	15.5	1811	39	8.2	16739	478	100
1970-71	9144	388	77.1	2596	70	13.9	1642	45	8.9	13382	503	100
1971-72	9385	496	75.0	3351	122	18.4	984	43	6.5	13720	661	100
1972-73	5749	486	78.5	997	76	12.3	818	57	9.2	7564	619	100
1973-74	4126	1141	79.2	944	184	12.8	538	115	7.9	5608	1440	100
1974-75	6693	2260	92.8	413	109	4.5	226	64	2.6	7332	2433	100
1975-76	7217	1208	94.7	326	31	2.4	282	36	2.8	7825	1275	100
1976-77	6505	913	93.6	99	11	1.1	458	52	5.3	7091	976	100
1977-78	6334	637	97.3	287	14.5	2.2	114	35	0.5	6735	655	100

Table - 5.10

Comparative statement showing Export of Hand made and Machine made Shellac
from India 1965-66 to 1977-78

.....

	HAND MADE SHELLAC			MACHINE MADE SHELLAC			TOTAL SHELLAC EXPORT		
	QTY. (TONS)	VALUE (RS. LAKHS)	PERCENT OF TOTAL SHELLAC EXPORT	QTY. (TONS)	VALUE (RS. LAKHS)	PERCENT OF TOTAL SHELLAC EXPORT	QTY. (TONS)	VALUE (RS. LAKHS)	PERCENT
1965-66	5001	164	47.1	5077	184	52.8	10078	348	100
1966-67	6117	211	50.6	4909	206	49.4	11026	417	100
1967-68	5030	163	43.5	5024	212	56.5	10054	375	100
1968-69	5433	154	40.6	5784	225	54.4	11217	379	100
1969-70	4384	125	34.3	6826	239	65.7	11210	364	100
1970-71	3261	121	31.3	5882	266	68.7	9143	387	100
1971-72	3059	143	28.8	6326	353	71.2	9385	496	100
1972-73	1895	150	30.9	3853	335	69.1	5748	485	100
1973-74	1464	357	31.3	2661	784	68.7	4125	1141	100
1974-75	2387	772	34.2	4306	1488	65.8	6693	2260	100
1975-76	1770	270	22.4	5446	937	77.6	7216	1207	100
1976-77	2248	308	33.7	4257	606	56.3	6505	913	100
1977-78	1810	171	26.8	452	468	73.2	6333	639	100

Source: Ibid pp. 14-15.

Table - 5.11
EXPORT OF LAC (ALL KINDS) FROM INDIA TO LEADING COUNTRIES (QUANTITIES IN TONS & VALUES IN RS. LAKH)

Year	USA QTY.	VALUE	U.K. QTY.	VALUE	W. GERMANY QTY.	VALUE	USSR QTY.	VALUE	OTHERS QTY.	VALUE	TOTAL QTY.	TOTAL VALUE
1965-66	1984 (14.1)	56 (13.15)	1751 (12.53)	54 (12.68)	1408 (10.08)	34 (7.98)	2649 (18.96)	77 (18.08)	6183 (44.2)	205 (48.12)	13975 (100)	426 (100)
1966-67	2734 (17.64)	90 (16.48)	2408 (15.54)	83 (15.20)	2697 (17.40)	71 (13.00)	1050 (6.8)	36 (6.6)	6611 (42.7)	266 (48.72)	15500 (100)	546 (100)
1967-68	2764 (17.9)	79 (15.34)	2251 (14.6)	73 (14.17)	2319 (15.1)	62 (12.04)	1383 (9.0)	43 (8.35)	6674 (43.4)	258 (50.10)	15391 (100)	515 (100)
1968-69	2998 (17.0)	79 (15.71)	2263 (12.8)	67 (13.32)	3553 (20.1)	60 (11.93)	1996 (11.3)	57 (11.33)	6904 (38.9)	140 (47.11)	17714 (100)	503 (100)
1969-70	3437 (20.5)	88 (18.44)	2224 (13.3)	68 (14.23)	2381 (14.2)	45 (19.41)	2928 (17.5)	85 (17.78)	5769 (34.5)	192 (40.17)	16739 (100)	478 (100)
1970-71	2856 (21.3)	89 (17.69)	2135 (16.0)	85 (16.90)	1363 (10.2)	30 (5.96)	1222 (9.1)	38 (7.55)	5806 (43.4)	261 (51.89)	133382 (100)	503 (100)
1971-72	3335 (24.3)	136 (20.57)	2214 (16.1)	104 (15.73)	1552 (11.3)	61 (9.23)	764 (5.6)	33 (4.99)	5855 (42.7)	327 (49.47)	13720 (100)	661 (100)
1972-73	1034 (13.7)	81 (13.09)	1198 (15.8)	95 (15.35)	1321 (17.5)	92 (14.86)	643 (8.5)	41 (6.62)	3368 (44.5)	309 (50.0)	7564 (100)	618 (100)
1973-74	518 (9.4)	119 (8.27)	869 (15.5)	205 (14.25)	702 (12.6)	145 (10.08)	342 (6.1)	112 (7.78)	3170 (56.0)	858 (59.62)	5068 (100)	1439 (100)
1974-75	690 (9.4)	194 (7.97)	657 (9.0)	202 (8.30)	595 (8.1)	163 (6.70)	1556 (21.2)	558 (22.93)	3834 (52.3)	316 (54.09)	7332 (100)	2433 (100)
1975-76	816 (10.2)	122 (9.57)	945 (12.1)	142 (11.14)	1245 (15.9)	121 (9.49)	1354 (17.3)	255 (20.00)	3465 (44.3)	635 (51.22)	7825 (100)	1275 (100)
1976-77	918 (11.99)	117 (11.99)	824 (10.96)	107 (10.96)	536 (7.38)	72 (7.38)	762 (10.35)	101 (10.35)	579 (59.32)	579 (59.32)	7022 (100)	976 (100)
1977-78	996	95	893	84	493	29	500	43.75				

Figures: in brackets represent percentage of total Export in at year.

Source: Statistics on Lac at a Glance-Shellac Export Promot Council, Calcutta, 1977, page 17-18.

Table 5.12

PERFORMANCE OF MAJOR EXPORT HOUSES OF SEED LAC & SHELL LAC DURING 1972-77
(EXPORT FIGURES ARE IN TONS)

S.No.	1977	1976	1975	1974	1973	1972	Average for 1972-73
1. Achhuran Kalkhof & Co.Pvt. Ltd.(ME)	2533.3 (27.96)	2336.4 (22.65)	517.5 (9.91)	1714.2 (32.93)	1754.6 (28.62)	2995.7 (24.87)	2098.3 (25.33)
2. Angelo Brothers Ltd.(ME)	1588.4 (17.53)	1468.5 (14.27)	697.7 (13.02)	865.3 (11.59)	1026.6 (16.75)	2412.2 (20.03)	1340.1 (16.78)
3. Samar Singh Jaiswal P.Ltd.(ME)	2028.1 (22.38)	1321.5 (12.84)	1465.2 (28.07)	1359.1 (18.20)	1277.2 (20.83)	1827.6 (15.17)	1546.5 (18.67)
4. Kanoria Overseas Corpn.(ME)	519.0 (5.73)	1213.8 (11.79)	624.0 (11.95)	284.1 (3.80)	179.8 (2.93)	165.2 (1.37)	497.6 (6.01)
5. Bharat Laxmi Trading Co.P. Ltd.(ME)	389.5 (4.30)	671.0 (6.52)	355.9 (6.82)	341.8 (4.58)	202.5 (3.30)	375.1 (3.21)	389.3 (4.70)
6. A.M.Jordan Pvt.Ltd.(ME)	264.1 (2.91)	498.8 (4.85)	307.9 (5.90)	265.9 (3.56)	403.7 (6.58)	966.5 (9.02)	451.1 (5.45)
7. Johannes & Co.Pvt.Ltd.	187.3 (2.07)	149.1 (1.45)	338.7 (0.74)	231.1 (3.14)	345.2 (5.63)	713.7 (5.98)	279.1 (3.37)
Total for 7 major exporters	7509.8 (82.88)	7653.1 (74.37)	3988.8 (76.41)	6106 (81.79)	5189.6 (84.65)	9463.0 (78.56)	6602.8 (72.70)
8. Others: of whom	1551.4 (17.12)	2638.0 (25.62)	1231.5 (23.59)	1359.5 (18.21)	941.04 (15.35)	2582.90 (21.44)	1681.6 (20.30)
9. S.D.Bhoola (E)	210.8 (2.33)	392.2 (3.81)	104.7 (2.01)	149.6 (2.00)	26.5 (0.43)	68.5 (0.57)	158.8 (1.92)
10. Rati Lal B.Ghelani	205.1 (2.26)	420.3 (4.08)	177.1 (3.39)	163.5 (2.19)	66.9 (1.09)	60.0 (0.50)	182.1 (2.20)
11. Calcutta Commercial Agency(E)	191.3 (2.11)	91.9 (0.89)	31.7 (0.61)	8.7 (0.12)	1.5 (0.02)	14.1 (0.12)	56.5 (0.68)
12. Umedbhai & Co.(ME)	176.8 (1.95)	409.1 (3.98)	10.5 (0.20)	55.0 (0.74)	20.9 (0.34)	21.9 (0.18)	115.6 (1.40)
13. E.I.Commercial Co.Pvt.Ltd.(E)	34.3 (0.38)	35.6 (0.35)	127.0 (2.42)	367.0 (4.93)	106.9 (1.74)	454.3 (3.77)	187.6 (2.26)
14. All Others	733 (8.09)	1288.8 (12.52)	780.5 (14.95)	614.1 (8.34)	718.0 (11.71)	1964.1 (16.31)	981.0 (11.84)
TOTAL	9061.2	10291.1	5220.3	7465.5	6130.64	12045.9	8286.4

Source:- J. Banerjee & Co. Calcutta: Return of Actual Exports of Shellac range lac and other forms of lac from Calcutta to all parts of the world.

Note: Figures in parenthesis show the percentage total exports during the year.

Table - 5.13

SHARE OF M/S ACHRURAM KALKHOF AND CO.(S)P.LTD.
IN TOTAL INDIAN EXPORTS OF GERMANS IN PACKAGES OF
75 KGS.

Year	EXPORTS TO GERMANY			EXPORTS OF ACHRURAM KALKHOF & CO.(S) P. LTD.			SHARE OF ACHRURAM KALKHOF & CO.(S) P. LTD. IN TOTAL EXPORTS TO GERMANY		
	SHELLAC	SEEDLAC	TOTAL	SHELLAC	SEEDLAC	TOTAL	SHELLAC	SEEDLAC	TOTAL
1977	5967	2000	7967	2837	2000	4837	47.5	100.0	60.7
1976	15113	9840	24953	4270	9840	14110	28.3	100.0	56.6
1975	4324	-	4324	811	-	811	18.8	-	18.8
1974	7516	3735	11251	5594	3735	9339	74.4	100.0	83.0
1973	5547	6300	11847	4037	5825	9862	72.8	92.5	83.2
1972	14810	10617	25427	10538	9917	20455	71.2	93.41	80.5

Source: Various issues of Export Statistics from J. Bannerjee & Co., Calcutta.

CHAPTER - VI

LAC GROWERS : A SOCIO-ECONOMIC PROFILE

Minor forest produce (MFPs) are an important source of subsidiary income and employment for the bulk of the population dependent on agriculture and forestry in this area. Lac happens to be one of the most important minor forest produce of the region. The National Commission on Agriculture showed that out of the total value of MFPs of Rs.108 crores during 1974-75 lac earned about Rs.24 crores from foreign exchange alone*. Hence any programme of upliftment of the population dependent on primary sector for livelihood has to accord a fairly critical place to activities centering round lac and its growers.

Since there are a large number of forward linkages in processing and eventual export of lac, it gives good opportunity to increase employment. Thus lac which is a subsidiary source of income for its growers, through vertical integration, can be

*National Commission on Agriculture: Vol. 9 p.229.

According to another estimate (P.P. Ghosh Input-Output Structure of Bihar 1975, Patna) MFPs value of gross output in 1970-71 exceeded Rs.3.58 crores, while export earnings from lac products alone exceeded Rs. 5 crores, though a good part of it must, of course, be value added in seedlac and shellac manufacturing. Even then, lac's importance stands out.

made an important source of income, savings and investment for the lac growers. As we have seen in the foregoing, production of lac has not evoked a steady response from its growers owing to fluctuating prices and relatively low share of the value realised in terminal markets going to the growers. This also is an important reason for the gap that remains between advanced researches at the Indian Lac Research Institute and their low actual utilisation. Similarly, it is the lac of adequate remunerative returns from lac* which has stood in the way of success of Government's extension programmes and popularisation of improved qualities of brood lac.

If programmes of employment generation and improving the socio-economic condition of the rural poor in the lac producing region have to make use of the potential inherent in production and processing of lac, it is essential that the socio-economic characteristics and behaviour patterns of the target group of population are clearly perceived. Programmes not based on such an understanding not only to not have a

*In 1975, A Sub-Committee was appointed to "assess a non-fluctuating, remunerative price for lac growers". It suggested Rs.3/- per kg. as the minimum price to begin with, which was to be raised gradually. As we have seen, the grower's price rarely reached the level of Rs.3/- per kg.

chance of succeeding but instead may turn out to be counter-productive. Hence it is essential to study who these lac growers are, how differentiated they are and what is their socio-economic profile. We would also like to show how their position has changed over last one or two decades. This, we will do on the basis of secondary data as well as on the basis of a sample survey which we carried out in three districts of Chotanagpur during 1978.

Though the cultivation of lac is generally identified only with tribals, however, non-tribals also engage in cultivation of lac. In our grower's survey the total number of persons from whom the information was collected, was 1264. Of these, 52.4 percent reported themselves as Hindus, 35.1 percent as tribals, 4.8 percent as christians and 0.6 percent as Muslims (Table 6.1). However, all those reporting themselves as Christians reported themselves as tribals when the question about their caste was asked. Similarly those in "others" category in the religion column were found to have reported themselves as tribals when asked about their caste. This brings the percentage of total tribals to about 47 percent*.

*According to 1971 Census, the proportion of tribals to total population in Ranchi, Singhbhum and Palamau is 58, 46 and 79 percent respectively. Of about 49.3 lakhs tribals in Bihar, the three lac districts account for about 30 lakhs.

Thus lac cultivation can no longer be said to be an exclusive tribal activity and other sections of society settled in and around forests find it a good cash crop. Hence they too engage in its cultivation and collection. As we shall see with respect to Paikars as well, in an economy with limited opportunities for gainful work, activities like lac production, collection and marketing attract a large number of semi-employed persons.

The average family size of the respondent grower households as shown by the survey data comes to 7.5 which is significantly higher than the Bihar average*(Table 6.2). The medium and the modal classes, however, fall in the size group of 5 to 7 family members. About 60 percent of the households reported family size below 7, whereas 20 percent of households reported it to be above 10. A detailed scrutiny of our schedules showed that most of the families in the size larger than 10 persons belonged to non-tribal groups**.

Furthermore, it can be seen (Table 6.3) that about 55 percent of the family members of our sample are males. This

*According to 1971 census, the average family size in Bihar is 5.7 and the three districts of Palamau, Ranchi and Singhbhum have family sizes of 5.5, 5.4 and 5 respectively.

**Of 24 such families, 15 belonged to non-tribal groups.

is also close to the sex-ratio shown by 1971 census which shows about 53 percent of the Bihar population as males. Then, if one takes the 18 to 60 years age-group as belonging to active labour force, about three-fifth of the population falls in this category. A level higher than overall Bihar level (Table 6.4). However, given inadequate exposure to education (with over 75 percent illiteracy), even the children in the age range of 10 to 18 are likely to be participating in economic activities. These two age-groups together account for over 70 percent of our sample's population. A high percentage (over 27) in the below 10 years group indicates high recent birth rate and contributes to large family size*. Similarly the rather small proportion (about 2 percent) of the population being in the above 60 age-group suggest not very high life expectation at birth and low standard of living, particularly, poor nutritional and medical care standards. The comparable figure for Bihar and India are around 6 percent.

*The Rates of growth of population (Percent) are as under:-

	Ranchi	Palamu	Singhbhum	Bihar
1941-1951	11.09	8.80	8.64	10.27
1951-1961	15.86	20.49	20.54	19.28
1961-1971	22.11	26.65	18.92	21.33

One can further note the low educational and formal skills-level of our sample (Table 6.5). While about 15 percent report primary education, about half this number have had middle level education. The number of persons above the middle education level (including technical education) is very insignificant. Overall literacy rate comes to 24.2 percent, which is higher than the Bihar rate of 19.9 percent.

These facts have significant bearing on lac production, marketing, processing, exports and government intervention in these areas. Individually or even on the basis of self-supporting cooperative organizational basis, the growers cannot effectively participate in marketing, processing and exports owing to absence of educated leadership of their own. This also handicaps them in effectively taking advantage of government interventions for benefiting them. Since lac trade is a rather complex one, connected with international markets and passing through many stages of processing with a plethora of grades and varieties with different profitability, inadequate educational level of the growers becomes a serious limiting factor, more particularly for the tribals with their different value system and behavioural norms.

Occupational Profile

While the percentage of population in the working age-range was found to be about 60 percent, we find the number of workers to be around two-fifths* (Table 6.6). Then, many persons in the age-range 10 to 18 may have been reported as workers, particularly those between 14-18 age-range. This will further reduce the proportion of workers to labour force. One can look at this proportion as a general indicator of the incidence of under-employment and unemployment among the lac growing households. Given such a large availability of unutilised family labour, one can easily see the significance of increasing lac production and locating lac processing and lac-utilising industrial units in the lac region (to the extent possible under the control of the lac-growers cooperatives) for supplementing their working and income earning opportunities.

An overwhelming majority of workers (37.7 percent out of 40.6 percent total workers) are self-employed with only about

*The 1971 census figure of workers for Bihar at 31.03 percent (as against 1961 figure of 41.4 percent) is not comparable because of change in the definition in 1971 which yielded a participation rate lower than that in 1961 for the whole country as well.

3 percent being wage-earners. This, alongwith the heavy dependence on agriculture, show the predominance of small-sized, traditional activities organised along family lines for the growers. This is in keeping with the predominance of agricultural activities in the occupational structure of the growers.

Sources of income of surveyed grower households were identified at two levels - major and subsidiary (Table 6.7). Major source of income was defined as the one contributing more than half of the income of the household. In case no such single source could be identified - two or more most important source of income contributing to more than half the total household income were clubbed together to obtain the major source of income. Subsidiary source of income were identified as the most important source of income after the major source had been accounted for. In case more than one source contributed more or less equally (an assessment of which was left to the respondent) more than one subsidiary source of household income were reported.

The survey data show 83.8 percent of households

dependent purely on land as major source of income*. Taking major and minor dependence on land together, we find about 93 percent as agriculturists. Another 10.8 percent show dependence on labour alone for major part of their household income with 6.6 percent showing it as minor. Only 2.4 percent of surveyed households reported artisan-work or handicrafts as the major source of income whereas those dependent mostly on business were about 1.8 percent of the sample households.= Those dependent on labour and MFPS together for their major source of income were only 1.2 percent**. Thus the data showing major sources of income of growers (Table 6.7) hints at the backwardness of rural parts of this region as well. Since not a single household was identified as dependent on household industry, though 2.4 percent reported themselves as artisans engaged in handicraft, while another 4.8 percent report these activities as subsidiary source of income.

*According to 1971 census, 83.2 percent of total workers depended on agriculture. For Palamu, Ranchi and Singhbhum, the corresponding figures are 89.8, 80.6 and 69.9 percent respectively.

**According to 1971 census, about 1 percent of the region's population is dependent on forestry, livestock and allied activities.

Coming to the question of income level of the grower households, we considered it appropriate to proceed in terms of the physical quantities of their average or normal production level. This was because, this information was not only expected to be available more readily and reliably but is also likely have better temporal and inter-family comparability. Our data show (Table 6.8) an average production of 63.11 maunds of agricultural products (mainly paddy and maize) per annum per household. Comparing it with the average family size of the surveyed household of 7.5 members, per-capita availability of foodgrains among the surveyed households comes to about 8.25 maunds per annum of cereals like paddy and other food grains of coarse variety. Taking the average local price of paddy at about Rs.25 per maund (close to the current price) - the data show an average monthly per capita income level of about Rs.22 at current prices. Compared to the NSS data for Bihar (26th Round 1977) which shows a decline in monthly consumption per head between 1960-61 and 1970-71 (from Rs.19.02 to Rs.15.43 at 1960-61 prices), our survey data (Rs.22 at 1978 prices) suggest a lower level of consumption. However, a more appropriate comparison would be with the lower deciles of rural population. In this

respect, we note that the percentage break-up of the rural consumption data from NSS show that the consumption of the lowest three deciles of population in Bihar ranged between Rs.8.10 and Rs.12.09 per-head in 1960-61. It declined and came down to range between Rs.5.91 and Rs.9.55 per-head in 1970-71 at 1960-61 prices. These figures are close to the results of our surveys suggesting that the lac growers form part of the three lowest deciles of the rural population.

In this light, an average sale of 41.58 kgs. of sticklac per household (as per table 6.20) becomes very significant. More particularly, if the support price of Rs.3/- per kg. actually prevailed, it would increase the per-head consumption for the lac growers in this region by about Rs.1.50 per month.

The sample households show a good deal of differences in level of their average annual agricultural production. The largest number of families (52.2 percent) report annual production below 50 maunds of coarse grains, mainly paddy. Almost one fourth (23.8 percent) show an output level ranging between 51 and 100 maunds. Only a handful of households (around 8 percent) report a production level of over 300 maunds. About 16 percent families fall in the agricultural production range

of 100 to 300 maunds. 81.3 percent of the sample households grow only one crop a year (Kharif) and only one variety as well (Paddy) (Table 6.9). Those growing two varieties of crops accounted for 9.4 percent households. The largest number of varieties of crops reported was six and was reported by 3.0 percent of households only. Thus the growers have by and large, a mono crop culture which indicates the poverty, vulnerability and backwardness of the growers.

It follows that given largely similar geo-climatic conditions, differences in the levels of production indicate that there exists fairly wide differentiation in the levels of land holdings, income, consumption and marketed surpluses among our sample households*. In fact, a majority within average family size of over 7 and with annual production of less than 100 maunds of agricultural produce (mostly paddy since over 80 percent were found to be growing paddy alone) can hardly be

*For example, according to Agricultural Census, Bihar, 1970-71 while holdings upto one hectare accounted for 41.93, 49.66 and 59.84, percentage of holdings in Ranchi, Palamu & Singhbhum, respectively, they accounted for 5.80, 7.39 and 12.54 percent of area of operational holdings. On the other hand, in the three districts in the same order, holdings, above 10 hectares numbered 6.60, 4.75 and 1.79 percent of the total but accounted for 35.96, 34.09 and 16.42 percent of the area.

expected to have sizeable marketed surpluses for obtaining cash income. Since all these households are also involved in lac production, one can see the critical significance of lac as a source of their non-food consumption, leading to participation potential in the rest of the economy and providing a/source for some amount of savings and investment. Improvement in earnings from lac, therefore, are likely to increase the economic and consequently social integration of the poor agriculturists and tribals with the broader economic and social life of the region.

Another interesting factor arising from these facts is the narrow-size of the top of our sample households. Moreover, on the basis of the information received by us, even the top households group cannot be considered too affluent on a comparative scale.

Lac being a commercial, subsidiary minor forest produce, its growers produce it for the market. In fact, in our discussions with people interested in lac, we often heard that when prices of lac are too low, the growers refuse to scrap stick-lac from the trees. This indicates a fair amount of responsiveness to market stimuli. Returns from lac have been one of the factors associated with fluctuations in production and market arrivals

of lac, though clear evidence to this effect is not available, mainly because growers' price of sticklac data are not available.

However, lac is not the only product which involved the growers in a market economy. Given the developments in the overall economy, its increasing monetisation and integration, it is unlikely that the market would not have penetrated the economy of lac growers, a fairly large portion of whom are tribals.

The extent to which our sample households buy their inputs from the markets is a good index of their participation in markets. Though internally provided inputs account for a much larger share than that bought from the market (See Table 6.10), given the limited size of production and traditional methods of production, it is significant that over one-fifth of the labour, about one-fourth of implements and a little less than one-third of the draught animals are bought or hired. Given the small plots of land (as seen earlier) own account supply of inputs cannot be significantly reduced. The limitation on the extent of market penetration and conversion of economic activities into market forms is hindered by the small resource base of the farmers. The level of annual paddy production, already discussed (See Table 10) clearly shows the

preponderance of small and marginal farmers. Without alternative sources of income and work and/or additions to their land-holdings to make them viable, and/or access to forest-based economic activities yielding incomes capable of leaving with them an investible surplus, the market penetration is bound to be sporadic and limited. The economy of the lac growers is a kind of underdeveloped commodity economy.

However the picture of participation in the commodity market was different. All the surveyed households reported sale of some commodity or the other. Nearly half of the households reported sale of minor forest produce. Cereals were brought to market by 15.7 percent households only, vegetables were sold by only 3.2 percent of them and handicrafts by about 1.9 percent (Table 6.11). Other sundry goods like poultry produce, dairly produce, fishes, livestock, implements etc. were reported to be sold by 25.5 percent of the households. This further highlights the important role that MFPs play in augmenting the income of rural households in this region.

The most important subsidiary source of income for the surveyed households was livestock rearing which was the case for about 25 percent of the sample size. About 11 percent households

reported only MFPs alongwith labour as the subsidiary source of income. Labour, MFPs and Livestock combined together accounted for the subsidiary income of a little less than 16 percent of the sample households. Thus MFPs contributed to the income, to varying extents, of the sample households (Table 6.7).

In the midst of the above mentioned occupational diversity, lac growing provides an interesting common feature. To some extent or the other, almost the entire sample was involved in lac growing. Thus, though something like one-fifth of the households had MFPs as their main source of income, lac, albeit the single most important MFP, was major source of income for no one. And yet, it contributed at least something to the income of almost every agricultural household in the region. This wide, non-specialised base of lac growing is, from the point of view of regulation and development of the activities centering round lac, a significant feature. For one thing, the fact that a large number of growers are interested in lac to varying degrees also becomes its weakness in as much as many of them are not seriously affected by movements in lac economy. Then, the methods of improving lac production, quality and marketing have to reach a large number. The cost and

difficulties of spreading efforts on a large number can well be imagined. For these reasons, it also becomes difficult to organise multi-purpose (production, marketing, processing) lac growers cooperatives. It also implies that issuing identity cards or licences to growers are very costly and difficult exercises since anyone who has an access to any of the host trees may and should be allowed to grow lac.

With this background of the economic conditions of the rural household who are lac growing households as well, we now turn to the economics of lac cultivation among them.

Lac cultivation is mostly carried on ber trees which are of small size and spread over in this region as shrubs. Palas stands next in order of importance. Our survey shows that 85.6 percent of grower household use ber as host tree, whereas Palas was used as a host tree for lac growing by 62.9 percent of household. However, Kusum, which is the producer of best quality lac, was reported to be used by 12.0 percent of sample households only. About 2 percent of households used Pipal tree as well (Table 6.12). Use of more than one type of host tree by a grower household is a very common feature of lac cultivation (Table 6.12).

Besides labour*, broodlac is the major input normally used by the lac grower. Questions regarding quantity of use of broodlac, its value in money terms at market rates and source of procurement were asked to the grower households. Some growers preserve broodlac from the preceding crop, and hence their cost is what they forego by not selling this portion in the market. However, whereas quantity of broodlac used was reported by all the growers, its money value and source met a high level of non-response (from about 73 percent). The non-response can mainly be attributed to the fact that the question about broodlac purchase related to the last season only - implying thereby that only 27 percent of grower households used fresh broodlac for infection of host trees (Tables 6.13 and 6.14). In practice, though broodlac is sold in bundles, we converted the quantity in kilogramms as per the local conversion ratios. Table 6.13 shows that about one-third of the growers use less than 5 kgs. of broodlac

*Labour use in lac growing is discontinuous and is spread over three to four months per season. A fair proportion of the total labour time is spent on guarding the crop during the scrapping season.

and more than 50 percent of them use less than 10 kgs. of broodlac. About 40 percent of them use between 5 kgs. to 20 kgs. of broodlac whereas about 90 percent of growers use broodlac upto 30 kgs. on average. Since the yield of sticklac averages to $2\frac{1}{2}$ to 3 times the quantity of broodlac (Phunki) planted, broodlac use data provide an indication of production level as well. Average quantity of broodlac used amounts to 13.3 kgs. while average quantity of sticklac sold comes to 41.58 kgs.

Those using more than 40 kgs. form a very small
of the
fraction of about 1.8 percent/sample households. In terms of money value, about one-fourth of the reporting households used broodlac worth Rs.10 to Rs.25, whereas about one-third of them did not spend any amount of money on purchase of broodlac at all. On an average, however, the households purchasing broodlac (about one-fourth) spent about Rs.44 for broodlac. Since a
did not
large proportion of households/respond to this question, our results are not so reliable. A crop failure dries up the source of broodlac and growers are forced to go to the market for buying broodlac. Given the prevailing price of Rupee one per kg. of broodlac this seems to be on the higher side.

However, since only about one-fourth of the growers buy broodlac against cash, it is not unlikely that they are the bigger growers, spending, good amount on broodlac. Broodlac used once lasts for more than one season depending upon weather conditions.

The nature of ownership of host trees as reported by the sample households shows that more than 75 percent households owned the lac host trees. The trees with just operated status (i.e. without the explicit mention of ownership by the grower) were reported to be in about 22 and 26 percent cases for per and palas trees respectively. The ownership of trees was mostly private. This is in conformity with the pattern of ownership of land on which the trees were standing. There is little leasing in and lessing out of lac host trees. However, we found that next to privately owned trees, host trees on forest lands and village common land are the most numerous, which seem to be operated upon without clear-cut legal status. The general belief that lac is a forest product (as known by its inclusion in the category of MFPs) is not borne out by facts. It seems to persist as a legacy of some past usage. It is important to understand lac growing as an activity subsidiary to farming on privately owned lands, though village common lands and forest lands are also used for the purpose to a certain extent.

The nature of crop that is scrapped from the host trees has been a subject of debate since the Lindsay - Harlow Committee's Report in 1921. It was observed then that most of the growers do not wait for the crop to fully mature and instead scrap it pre-maturely as and when they need to sell it for getting some cash. Situation does not seem to have changed much since. Our sample survey shows that only about 55 percent growers scrap fully matured crops. The rest of the growers do it in Ari stage itself essentially owing to their immediate economic needs.

Scrapping of sticklac from host trees is followed by its marketing and a grower household has to take a decision regarding whom to sell and where to sell etc. according to the limited options he may have - given the organisation of collection of sticklac by the purchasers and his own ^{consumption} needs. Questions were asked of the sample households regarding the place of marketing, agency to which sold, market charges paid, mode of transport etc. The responses with regard to choice of marketing place show that about 80 percent grower households preferred to sell in the haats. In our sample, no grower household reported selling of sticklac at factory etc. However,

central haats, which have a number of lac manufacturing units as well, were reported to be the selling point by about 13 percent of grower households (Table 6.15). The sale of sticklac in the village, was restricted to about 6.5 percent grower households only. The importance of haat, which is also a major centre for economic dealings, shows that the sale of lac is related to the purchases made by the growers from time to time. It highlights the subsidiary source of income character of lac for the growers.

About 90 percent of the reporting grower households expressed lack of personal acquaintance about the buyers of sticklac implying existence of impersonal market relationships in sticklac trade.

Distance of the market place from the village was reported to be less than 8 miles in about 97 percent cases. The modal distance group from the village to the marketing centre was two to four miles with a percentage frequency of 34 percent. About 17 percent grower households sold lac in the haats within 2 miles from their village. The average distance of haats from markets, however, was found to be 4.33 miles (Table 6.16).

Most of the growers (about 75 percent) commute to the market place on foot (Table 6.17). Those using bus and walking on foot together were about 20 percent of the respondents. Only 3 percent reported using trains etc. As reported earlier - the average distance of the market place from the village come to about 4.33 miles (one way) implying that on an average about 3.20 hrs. to 4 hrs. are spent by the growers in commuting to the market and back on the market days. The average transport charges paid by the growers, however, come to about Rs.0.46 per head per market day (Table 6.18). This is understandable because most of the expenditure on transport and carriage is in real terms; in terms of time spent on commuting to haats and back home.

The most important agency to whom the grower household reportedly sold the sticklac were the Paikars and more than 91 percent grower households reported the sales being made to them. Next in the order of importance were the Arahtias who were reported as buyers by 5 percent of the sample households. Government agents, rakhiwals and factory agents were reported as buyers by 1.9, 1.3 and 0.7 percent respondents respectively (Table 6.19). However, there seems to be such a

great deal of mixing up of roles among buyers that growers may have a tendency to identify any purchaser as a paikar. However, notwithstanding this, Paikars remain the single largest collecting agency for sticklac. This shows some sort of a shift in the marketing pattern of sticklac by growers from that of early 1950s. The marketing pattern as given by Shri M.B. Ghatage (1953-54) and as revealed in our survey (1978) is shown in the table below:

Average share of various agencies in the assembling of sticklac in India

Sl. No. Agencies	Share of total quantity handled in 1953-54(%)	Percentage of growers reporting selling at various market places - 1978 survey (%)
*1. Village (Paikars)	16.9	6.5
2. Haats/Paikars	44.2	80.5
3. Central Haats/Arthatiyas	34.8	13.0
4. Factories	4.1	-
Total	100	100

Source: MB Ghatage: Marketing of Lac in India, Govt. of India 1954 and Field Survey, IIPA, 1978.

A comparison between the two is not possible as the data from Ghatage relate to the quantity of produce handled whereas our data show percentage of growers reported selling at various market places. However, the magnitude of change in the two series is so large as to suggest some change in the marketing pattern in favour of increased role of haats and paikars.

Similarly in the case of percentage share of purchasing agency as well- the percentage share of Paikars seems to have gone up from 61 percent in 1953-54 to about 91 percent in 1978. Simultaneously - the share of Arhatias and landlords went down very significantly from about 35 percent in 1953-54 to 13 percent in 1978. The village sales may be to the Arhatias and landlords and the haat sales to the paikars. Hence the former decline together while the latter go up simultaneously.

Grower's response in regard to the quantity of sticklac sold by them during the last year shown that majority of them (about 54 percent) sold something between 10 to 20 kgs. of sticklac in a year. The average quantity sold by our sample grower-households came to about 41.58 kgs. About 7.6 percent households reported selling less than 10 kgs. of sticklac. Only about 6 percent households sold more than 100 kgs. of lac in a year. Those selling between 40 to 100 kgs. came to about 14.5 percent of the sample households. However, both the median and the mode of the distribution, according to quantity of sticklac sold, falls in the size groups, 10 to 20 kgs. The mean falls in the next size groups, 20 to 40 kgs. (being 29 kgs.). The top 40 percent of the households (in terms of lac sold)

account for a much larger share of the total sales than the bottom 60 percent. However, given the highly non-specialised and scattered nature of lac production, there are relatively few big growers of lac. Even the largest selling household groups would be earning (even at a price of Rs.3 per kg. of sticklac) only about Rs.300 p.a. The largest quantity of sales reported was, after all, 180 kgs. only (Table 6.20).

Ghatage reported average deduction by way of market charges worth Rs.1.75 per maund in 1953-54 at secondary market which was about 10.3 percent of the total deductions made at the secondary market. Major deductions were for quality allowances and the total deductions at primary haats and villages were about Rs.6.10 per maund whereas at secondary haats total deductions amounted to about Rs.10.85 per maund. Our survey data - however, shows an average direct market charge of the order of Rs.0.47 per market day (Table 6.21).

The average quantity of sticklac sold was only about 41.58 kgs. per family household which was distributed over a long period. Therefore, the quantity brought per market day would be very low. Hence average market charges of Rs.0.47 per

head load may effectively be much higher than the amount paid in 1953-54. The direct market charges, moreover, may not be the most significant element in marketing. The real cost may be high and indirect, if the price realisation is low. If we take the price spread between average export price of shellac and the sticklac price as an index of growers' share in lac price, (which is very high, as seen elsewhere), then, it follows that the real marketing cost is on the higher side.

About 62 percent respondents reported paikars as the main source of knowledge about market prices of sticklac (Table 6.22). Fellow villagers ranked second and 22.1 percent growers reported receiving knowledge about prices of sticklac from them. It was only in about 5 percent cases that the growers reported that they came to know the price through the market in an impersonal manner. However, only 36.4 percent growers reported advance knowledge of prices. It means that the knowledge from paikars and fellow growers was largely received during the haat period. Most of the growers (about four-fifths) reported that the majority of traders were quoting different prices (Table 6.23). It brings out the imperfection

of the haat as a selling place and also highlights the role of knowledge about price trends for realising a better price by the grower. Since there are weather-induced fluctuations in the level of lac production and these, in turn, affect sticklac prices, it can be inferred that advance knowledge of or attempts at forecasting crop level can benefit the growers in realising a better price. Our survey showed that about two-thirds of lac growers try to anticipate the expected level of production from their own trees, about one-third for the entire village and a very small number (about 2.5 percent) for the block. A large number of growers depend on experience and observation for making such forecasts (see Table 6.24). It means they have little knowledge of the expected crop in the larger region and price level. They cannot take advantage of the market opportunities in the absence of such information (Table 2.26). On the other hand, our discussions with large-scale manufacturers and exporters showed that they have access to systematic reports from their field staff, traders, agents etc., on the crop prospects. This gives them added advantage over other interests in lac. Thus we found (Table 6.25) that for a big proportion of growers their price expectation is

never realised.

The lac markets are, by and large, ready cash markets. About 97 percent of the growers reported sales against cash (Table 6.23). Given the facts that only small quantities are generally brought to the weekly haats and the need for cash in order to buy consumables is an important consideration in determining the level and frequency of release of lac in the market, the system of cash payments is understandable. On the basis of our observation of haats and discussions with the people participating in the haats in various capacities we would like to point out some factors which weaken the bargaining power of the growers. A mixing up of primary produce and consumer goods market links up sale of lac (and other MFPs) to the need to buy weekly necessities. A grower sets off from his house or hamlet with a mentally prepared shopping list and whatever may be the trend in the market for the prices of his produce, he would like to make the best possible bargain on the same haat day. Our survey revealed that about two-thirds of the growers have no idea about the prices they are going to face in the haat on any particular day. About two-thirds spend all the income from lac on the purchase of other

goods in the same haat (Table 2.23). Even those who are left with some cash, (90 percent of them) spend it on the purchase of consumption goods on some other day, while 10 percent or so use the sale proceeds for repayment of loans.

Then he has already incurred the direct and indirect cost of transport and market charges etc. Taking the goods back home is not a practical option for him. All these imply that his reserve price is very low, it is almost any positive sum. We were told that in many cases when a grower is unable to dispose of his produce towards the close of the haat, the contractor of the haat or his nominee arrives on the scene and offers a rather low price for the "unsold" stock. The grower hardly has any option but to accept the "closing price" offered by the haat contractors. We were told that such purchases are an important source of income for the haat contractors. It appears from the foregoing that though money temporarily intervenes, the real position of these markets is not much different from barter. This mixing up of the produce and consumer goods markets works towards weakening the bargaining power of the growers. Separation of primary produce markets from haats and bringing them under the purview of Regulated

Markets Act may help improve matters. If a statutory, minimum price is to be offered for sticklac, a separate produce market would help ensure better implementation and effective supervision. The present system of visual inspection of sticklac brought to the market and a casual off the cuff declaration of its lac content also needs to be suitably modified.

These changes in the marketing pattern are important. For example, despite the entry of government agencies for purchase of sticklac as a part of the bufferstock operations, only about 2 percent of the sample grower households reported selling to government agencies. Even if some adjustments are made on account of the limitations arising from the choice and size of the sample (which in any case was proportioned) to the area under forests in each blocks, and covered all the blocks, including the more interior ones), as also for the poor crop of the study period leading to near identity of the market price with the support price of Rs.2 per kg., the entry of government agencies cannot be presumed to have reached any sizeable number of households. The widespread suspicion concerning re-sale by non-growers to government agencies may not be without a basis.

Partly, this year (1978) market price being closer to support price owing to very poor crop, the role of the state agencies got limited. However given the widely acknowledged fact that the bufferstock operations started much after the beginning of the crop season (in the early days of a season there is a much higher arrival rate in the haats), it is only to be expected that the grower households could not sell their products to these agencies and derive advantage of the higher price offered by the Government agencies. In fact, about half the households did not even have the information that any support price scheme is being operated by the government.

Understanding the significance of sales at haats and to the paikars are important for any efforts at improving the system of lac marketing. The importance of haats and paikars arise from many factors. The small quantity sold by most of the households, timing and spacing of sales according to the need for cash, the merger of consumer goods market and primary produce market, lack of alternative buying agencies, tardy progress of cooperatives (only 6 percent of the sample households reported having received help from cooperatives) etc., apart from the historically given system of weekly haats, are important factors

behind the importance of the haats and paikars. Then, lack of income earning opportunities in the region which induce a large number of people to take to lac marketing as paikars which needs no sizeable investments and no highly specific and difficult skills also play its part in sustaining a large number of paikars (of varying sizes) in lac trade. Being a paikar can be likened to the search for work and income opportunities in the so-called informal or petty production sector where owing to rampant under-employment, human ingenuity creates all-kinds of works, yielding meagre incomes. The army of paikars which one can witness hovering around any haat, then, is only a symptom of a sluggish economy in terms of generation of employment opportunities. Strengthening the lac economy, by its scientific production, ensuring adequate returns, its processing by the local under-employed population and setting up of small scale industrial units based on lac and other MFPs should form parts of an overall, integrated strategy of boosting the economy of the region.

TABLE : 6.1

Percentage Distribution of Lac Grower Households
according to religion*

S.No.	Religion	Percentage
1	2	3
1.	Hindu	52.4
2.	Christian	4.8
3.	Muslims	0.6
4.	Tribals	35.1
5.	Others	7.1
Total		100.00

* Our field experience showed that some of these religion categories are overlapping. Some of these who report themselves as Christians, Hindus and "others" on further questioning call themselves "tribals" as well.

TABLE : 6.2

Percentage Distribution of Households
according to family size

S.No.	Family Size	Percentage of Households
1	2	3
1.	0 - 3	5.0
2.	3 - 5	21.5
3.	5 - 7	35.0
4.	7 -10	19.7
5.	More than 10	18.8
Total		100.0

Average family size = 7.53

TABLE : 6.3

Sex-wise percentage Distribution of
Family members in the Sample
Households

S.No.	Sex	Percentage
1	2	3
1.	Male	54.7
2.	Female	45.3

TABLE : 6.4

Percentage Distribution of Family Members
in Sample Households according to
Age Group

S.No.	Age Group (Yrs.)	Percentage in Total
1	2	3
1.	0 - 10	27.1
2.	10 - 18	12.7
3.	18 - 60	58.0
4.	60 and above	2.2
Total		100.0

TABLE : 6.5

Percentage Distribution of Members of Grower
Households according to Educational level

S.No.	Education	Percentage in Total
1	2	3
1.	Technical	0.6
2.	Secondary	1.4
3.	Middle	7.4
4.	Primary	14.8
5.	Illiterate	75.8
Total		100.0

TABLE : 6.6

Workers/Non-workers as percentage of members
of Sample Grower Households

S.No.	Work Status	Percentage to Total No. of Members in the Sample Households
1.	Workers,	40.6
	of whom	
	a) self-employed	37.7
	b) wage earners	2.9
2.	Non-workers	59.4
	Total	100.0

TABLE : 6.7

Percentage Distribution of Households according
to the source of Family income*

S.No.	S.No.	Source of Income	No. and Percentage of Households reporting major source	No. and Percentage of Households reporting minor source
1	2		3	4
1.	Land		141 (83.93)	14 (9.21)
2.	Labour		13 (10.72)	11 (7.24)
3.	MFPs		0	32 (21.06)
4.	Labour and MFPs		2 (1.19)	17 (11.19)
5.	Livestock		-	39 (25.61)
6.	Artisans and Handicrafts		4 (2.38)	8 (5.27)
7.	Business		3 (1.79)	7 (4.61)
8.	Labour, MFPs and Livestock		-	24 (15.79)
Total replies			168(100.00)	152(100.00)

* See Text for definitions and explanations.

TABLE : 6.8

Percentage Distribution of Households according
to Average Quantity of Agricultural
Production

S.No.	Quantity in . Maunds	Percentage of Households
1.	Below 50	52.2
2.	51 - 100	23.3
3.	101 - 200	9.2
4.	201 - 300	6.7
5.	301 and above	8.6
Total		100.0

Average: 63.11 maunds per annum per family.

TABLE : 6.9

Percentage Distribution of Households according
to number of varieties of crops grown

S.No.	Number of Varieties	Percentage of Growing House- Holds
1	2	3
1.	One	81.3
2.	Two	9.4
3.	Three	1.3
4.	Four	1.9
5.	Five	3.1
6.	Six	3.0
Total		100.0

TABLE : 6.10

Percentage Distribution of Reporting Households
according to source of inputs

S.No.	Inputs	Hired/ Bought	Provided by itself	Total
1.	Labour	21.2	78.8	100.0
2.	Implements	25.6	74.4	100.0
3.	Seeds	10.1	89.9	100.0
4.	Fertiliser .	12.2	87.8	100.0
5.	Drought Animals .	28.7	71.3	100.0

Table No.6.11

Percentage distribution of households
selling goods other than sticklac

.....

S.No.	Major Goods other than Sticklac Sold in the Hatt	Percentage of Household
1	2	3
1.	Minor Forest Products	53.7
2.	Cereals	15.7
3.	Vegetables	3.2
4.	Handicrafts	1.9
5.	Others (including poultry produce, dairy fishery, implements etc.	25.5
Total		100.0

Table No.6.12

Percentage of households according to
the ownership of the type of host trees
.....

S.No.	Type of Host Tree	Percentage of Households
1	2	3
1.	Kusum	12.0
2.	Ber	85.6
3.	Palas	62.9

Note: Since a household may own more than one type of tree, the total will exceed 100.

Table No.6.13

Percentage distribution of grower households
according to quantity of broodlac used

.....

S.No.	Quantity (KG.)	Percentage of Households
1.	Upto 2	8.1
2.	2 - 5	26.2
3.	5 - 10	18.0
4.	10 - 20	23.4
5.	20 - 30	12.6
6.	30 - 40	9.9
7.	40 and above	1.8
Total		100.0

Average quantity of
broodlac used = 13.3 Kg.

Table No.6.14

Percentage distribution of grower households
according to the expenses incurred on broodlac

S.No.	Expenses on Broodlac in Rs.	Percentage of Households
1.	Provided by himself	8.9
2.	Upto Rs. 10	-
3.	Rs. 10 - Rs. 25	6.6
4.	Rs. 25 - Rs. 50	2.4
5.	Rs. 50 - Rs. 100	6.0
6.	Rs.100 - Rs. 200	1.8
7.	Rs.200 & above	1.2
8.	Non Response	73.1
Total		100.0

TABLE : 6.15

Percentage Distribution of Grower Households
according to place of marketing of sticklac

S.No.	Place of Marketing	Percentage of Households
1	2	3
1.	Village	6.5
2.	Haat	80.5
3.	Central Haat	13.0
4.	Factory & others	-
Total		100.0

TABLE : 6.16

Percentage Distribution of Households according
to reported distance of market place(haats)
from the village

S.No.	Distance (in Miles)	Percentage Households
1	2	3
1.	Upto 2	17.4
2.	2 to 4	34.2
3.	4 to 6	23.2
4.	6 to 8	21.9
5.	8 & above	3.3
Total		100.0

Reported Average Distance of haats = 4.33 miles

TABLE : 6.17

Percentage Distribution of Household according
to mode of transport used for haats

S.No.	Mode of Transport	Percentage of Household
1	2	3
1.	Foot	75.1
2.	Bus/Truck	1.3
3.	Bus and Foot	20.3
4.	Train	3.3
Total		100.0

Table No.6.18

Percentage distribution of grower
households according to transport
charges paid

.....

S.No.	Transport Charges Paid (Rs.)	Percentage of Household
1.	Upto Rs. 0.50	60.9
2.	0.50 to 1.00	32.6
3.	1.00 & above	6.5
Total		100.0

Average transport expenditure by
a grower households = Rs. 0.46

TABLE : 6.19

Percentage Distribution of Grower Households
according to the agency to whom sales are made

S.No.	Agency to whom Sales are made	Percentage of Grower Households
1	2	3
1.	Paikar	90.9
2.	Rakhiwal	1.3
3.	Arhatia	5.2
4.	Factory Agents	0.7
5.	Government Agents	1.9
Total		100.0

TABLE : 6.20

Percentage Distribution of Grower Households
by Quantity of Sticklac sold

S.No.	Quantity (Kg.)	Percentage Household	
1	2	3	
1.	Upto 10	7.6	7.6
2.	10 - 20		53.5
3.	20 - 40		8.8
4.	40 - 60		7.6
5.	60 - 100		6.9
6.	100 and above		5.6
Total		100.0	

1. Average quantity sold by a grower household : 41.53 kgs.
2. Average quantity of sticklac sold by households having more than 100 maunds of agricultural production : 77.6 kgs.

Table No.6.21

Percentage distribution of grower households according to the market charge paid on each day lac brought to the market.

.....

S.No.	Market Charges Paid (Rs.)	Percentage of Households
1.	0.00 to 0.25	36.8
2.	0.25 to 0.50	40.0
3.	0.50 to 1.00	2.1
4.	1.00 & above	21.1
Total		100.0

Average market charges paid = Rs. 0.47

TABLE : 6.22

Percentage Distribution of Grower Households
according to the main source of knowledge
about price of sticklac

S.No.	Source of Knowledge	Percentage of Households
1	2	3
1.	Paikar	62.0
2.	Arhatia	11.0
3.	Fellow Villagers	22.1
4.	Market	4.9
	Total	100.0

Table No.6.23

SOME IMPORTANT INFORMATION ABOUT GROWERS

a. Percentage of grower households reporting same prices being quoted by majority of traders = 22 percent.

Percentage of grower households reporting different prices being quoted by majority of traders 78 percent.

b. Percentage of growers reporting sale against Cash only - 97 percent.

Percentage of growers reporting sale against other than Cash - 3 percent.

c. Percentage of growers reporting advance knowledge of prices - 36.4 percent.

Percentage of growers reporting no advance knowledge of prices - 63.6 percent.

d. Percentage of growers reporting knowledge of Government's support price scheme - 49.4 percent.

Of Government no knowledge of government's support price scheme - 50.6 percent.

e. Percentage of households reporting all the income from lac be being spent in the market on purchase of other goods - 64.7 percent.

Percentage of households reporting all the income from lac not being spent in the market - 35.3 percent.

f. Percentage of households spending remaining cash on household consumption - 90.1%

Cash on repayment of loans - 9.1 percent.

g. Percentage of grower households reporting help from cooperative societies - 6 percent.

TABLE : 6.24

Percentage Distribution of Grower Household
according to area for which crop forecast is made

S.No.	Area	Percentage of Households
1	2	3
1.	For own trees	65.0
2.	For the Village	32.5
3.	For the Block	2.5
Total		100.0

Table No.6.25

Percentage distribution of grower households
according to the frequency of the realisation
of price expectation
.....

S.No.	Frequency	Percentage Household
1.	Always	2.8
2.	Often	40.4
3.	Rarely	2.1
4.	Never	54.6
Total		100.0

Table No.6.26

Percentage distribution of grower households according to the source of knowledge about the nature of current crop

.....

S.No.	Source of Knowledge	Percentage of Households
1.	Observation of weather conditions	16.8
2.	Growth of broodlac	19.2
3.	Experience	9.6
4.	Guess	18.6
5.	Non-response	35.8
Total		100.0

Table No.6.25

Percentage distribution of grower households
according to the frequency of the realisation
of price expectation
.....

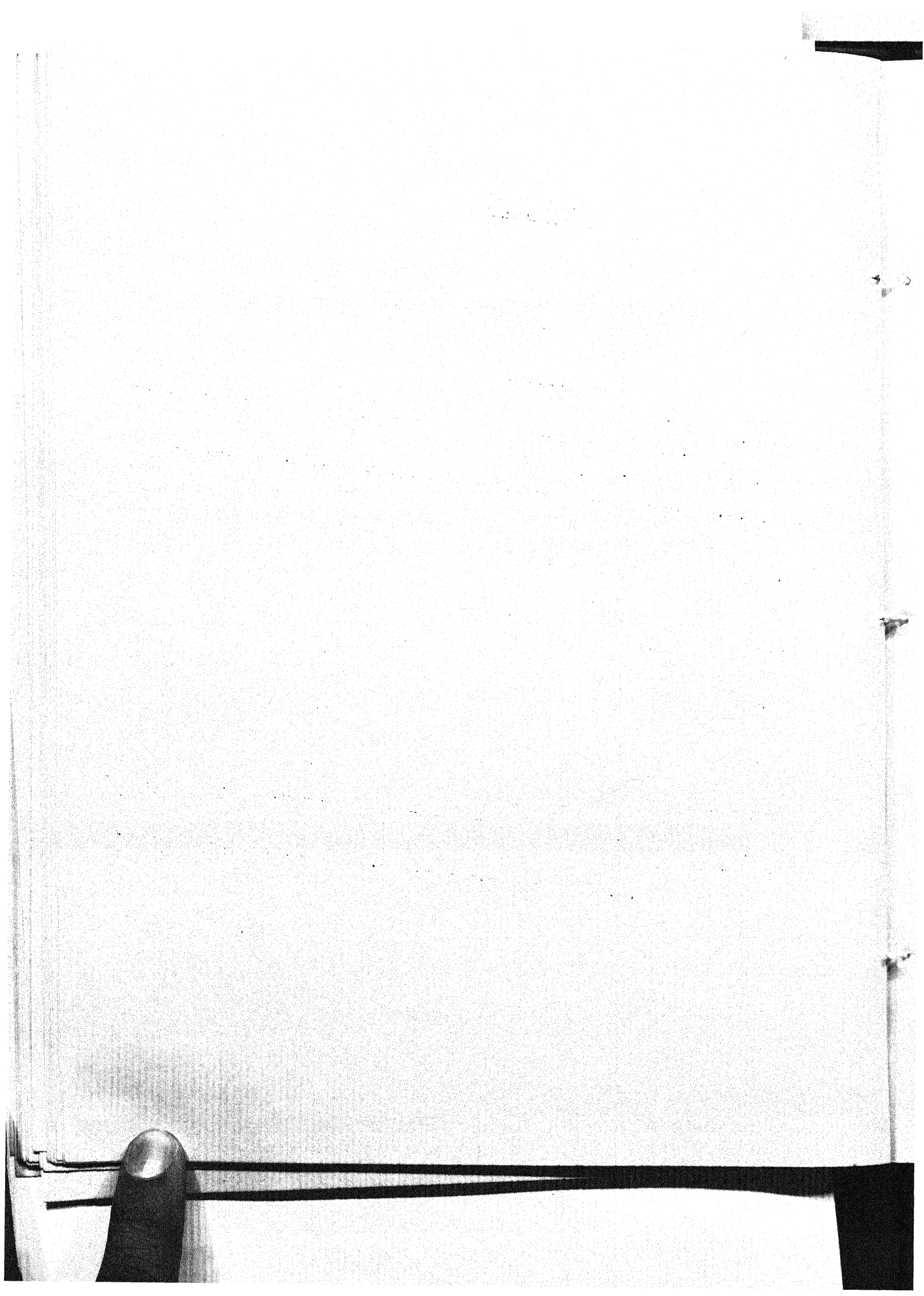
S.No.	Frequency	Percentage Household
1.	Always	2.8
2.	Often	40.4
3.	Rarely	2.1
4.	Never	54.6
Total		100.0

Table No.6.26

Percentage distribution of grower
households according to the source
of knowledge about the nature of
current crop

.....

S.No.	Source of Knowledge	Percentage of Households
1.	Observation of weather conditions	16.8
2.	Growth of broodlac	19.2
3.	Experience	9.6
4.	Guess	18.6
5.	Non-response	35.8
Total		100.0



CHAPTER - VII

LAC PRICES, MARKETING AND IMPACT OF PUBLIC POLICY

There have been rapid and wide fluctuations in the prices of sticklac, seedlac and shellac. A product with fluctuating production and demand can well be expected to have volatile prices. The past record of price fluctuations may itself lead to uncertainties about prices, causing still further price movements. A study of the price movements, which follows, may also bring out the role of the organisation and structure of lac markets in giving a further fillip to the price movements. Moreover, given the price behaviour it also follows that none of the policies followed by the government have contributed towards stabilisation of lac prices.

The analysis of relative prices of sticklac, seedlac and shellac has so far been handicapped because no all-India average price of sticklac was available. Attempts at comparison of these prices were based on the prices of sticklac prevalent in some selected markets. But given the large differences between the sticklac prices at different centres (see chart showing such differences), it was essential to arrive at an all-India yearly average price of sticklac.

We have constructed such a price series for 1969 to 1978 (see note on Methodology at the end of the chapter - Appendix-I). This series shows that sticklac prices have varied a great deal during the period ranging from Rs.141.9 per quintal in 1969 to Rs.1808 in 1974 (see graph showing percentage change in prices of sticklac) the weighted average price for the period comes to Rs.583 and the average annual prices are scattered widely off the mean (Table 7.1). Even if the obviously, the difference between the highest and the lowest annual price would be of the order of over 200 percent. The annual rates of price rise over the earlier year (Table 7.1) show large changes in both directions ranging between 232 percent and 25.23 percent on the positive side to almost 80 percent and 19 percent on the negative side.

The sticklac prices vary not only from year to year but also within a year. If we look at the sticklac prices over the four quarters of a year separately from 1969 to 1978 (See Table 7.3 and 7.4), we note that, except for the steep rise of 1974 followed by a big fall in the following year, the second quarter generally records the lowest price. In terms of lac seasons, we again find that generally during Baisakhi

(the most important crop), sticklac sells at the lowest price (see Table 7.5). It can be seen that from August to June there take place the bulk of market arrivals. Normally the arrivals during the period exceed 40 percent of the total (see Table 4-A). Baisakhi prices are higher than those of other crops only in 1975 when they decline from the all-time high of 1973-74 Aghani crop. The highest price normally obtains in the last quarter, during the marketing season of Kusumi crop. Thus immediately following the peak levels of the Aghani crop (continuing upto March) from April onwards there starts the period of relatively low prices, giving a sharp turn to the price movements.

The analysis of sticklac price movements brings out that these prices are not only unstable from year to year but within a year also there are fairly wide seasonal fluctuations. Moreover, prices are at relatively lower levels during periods when the market arrivals are relatively heavy.

However, more important aspects come to the surface when the sticklac prices are studied in relation to seedlac and shellac prices (both Calcutta prices of shellac and unit value realisation from lac products, mainly shellac, which can be taken to be the international prices fetched by Indian shellac).

Before we do that, let us briefly see the main features of the seedlac and shellac price behaviour.

Seedlac and shellac prices (Table 7.1, 7.3 and 7.4) also show the same features as sticklac prices, viz., large year to year fluctuations, generally rising trend upto 1974 and declining trend after 1975 and large intra-seasonal fluctuations, generally lower prices in the second quarter of the calendar year which covers the Baisakhi crop (though with less regularity than is found in the case of sticklac). It must be noted that shellac prices in the present context refer to Calcutta prices. Unit value prices of shellac (along with a small quantity of seedlac) were available to us only annually (Table 7.6). Annual average international prices of shellac also kept rising upto 1973-74 and then declined, though 1977-78 shellac prices were over 'three times the 1969-70 level'. The price rise is less marked for sticklac and Calcutta shellac and seedlac. The fluctuations in seedlac and shellac prices can also be seen from the following graphs showing annual percentage changes in these prices.

Analysis of the movements of the relative prices of sticklac, seedlac and shellac (Calcutta prices and average

international price) has to proceed in terms of price spreads between:

1. Sticklac and seedlac prices
2. Seedlac and shellac prices
3. Sticklac and shellac (Calcutta) prices
4. Sticklac and shellac (unit value realization in world market) prices
5. Shellac (Calcutta) prices and Shellac (average export) prices.

We also compare the shellac minimum exports prices (as fixed by the government from time to time) and the average value realised from shellac exports. As we shall see, these comparisons bring out many important features of lac economy, particularly its marketing.

The spread between sticklac and seedlac prices have varied a great deal since 1969 - from the low of Rs.48.80 per quintal in 1969 to Rs.505 per quintal in 1974. (See Table 7.6 and graphs I & II). The negative difference between sticklac and seedlac prices during the first quarter of 1978 arises because during the quarter bulk of sticklac sales are of the Kusumi variety which is a very high priced grade while seedlac prices refer to old stocks made from inferior grades.

The price spread keeps rising upto 1974, when the level rises to Rs.505 per quintal. In percentage terms, 1975 records the highest-level of 52 percent. After 1974, the price spread starts declining and in 1977, the seedlac price was about 2.7 percent higher than sticklac price. It follows that when seedlac prices started rising from 1972 onwards, the sticklac growers could not obtain a fair share. During 1976 and 1977 when lac prices came down, the price spread between sticklac and seedlac narrowed down.

The price spread between seedlac and shellac prices show lesser variations than that between sticklac prices and seedlac price. Except for about Rs.70 and Rs.76.5 difference during 1969 and 1970, the price difference during the subsequent years has ranged between Rs.100 per quintal in 1971 and Rs.227.5 in 1973. The years 1969 and 1970, which had low absolute difference, show relatively high percentage difference while it is the other way round for the period 1973-1975, when the price of lac products were rising. These price differentials show that the cottage sector seedlac units too are in a position somewhat similar to lac growers in as much as the price spread between seedlac and shellac moves largely

to the advantage of the exporters. When shellac prices rose substantially, the seedlac prices did not show adequate rise to keep pace with them, resulting in large absolute price spread. It shows the strong hold of the exporters on the lac market (see Table 7.6 and graphs III & IV).

Average annual sticklac prices and Calcutta shellac prices also show large and fluctuating price spread. Obviously in absolute terms this difference is the sum total of the difference between sticklac and seedlac prices and seedlac and shellac prices. Hence the trend we have already observed can be seen in a sharper form in the case of the price spread under discussion (see Table 7.6 and graphs II & VI). While absolute spread was the highest in 1974 (a year of very sharp price rise), the percentage difference was the highest in 1975. In the beginning of the seventies, the spread was around Rs.118 to Rs.132 per quintal, lately the spread has been around Rs.200/- per quintal. We find (Table 7.6) that upto 1972, the difference between seedlac and shellac was larger than that between sticklac and seedlac prices but after the beginning of rising trend of shellac prices during 1973-75, the shellac-seedlac price spread became smaller than seedlac-sticklac price spread.

During 1977, the shellac-sticklac spread became substantially higher than seedlac-sticklac price spread. If processing costs were of decisive importance in the size of price spread, one would not have seen such volatile behaviour of price spread over a period of about a decade.

The price spread between annual average price of sticklac and Calcutta price of shellac tells only a limited story, because the Calcutta shellac prices differ widely from the international prices of shellac. International prices of various grades of shellac and seedlac are different at different markets. However unit value realisation from exports of lac products, predominantly shellac, gives a fairly representative average international price paid by the foreign buyers for Indian lac products.

If we compare the Calcutta shellac (Lemon I, normally having higher price than that of other grades) prices with unit value realised in international markets (see Table 7.7) we find that the difference has ranged between Rs.37.8 in 1972-73 and Rs.831.3 during 1975-76. In percentage terms, the Calcutta prices have been as high as 95.5 percent in 1972-73 and as low as 45.9 percentage of unit value realisation

in 1975-76. During the last two years, they have been around 45 percent of the unit value realisation. In working out the prices which the lac trade is in a position to pay to the growers of sticklac, one finds that generally it is the Calcutta shellac prices which are worked backwards. Since what the exporters obtain is reflected by the unit value realised and owing to fairly big gap between Calcutta shellac prices and international unit value realisation, it is the latter which provide a reasonable basis for comparison with sticklac prices.

Tables 7.8& 7.9 present data concerning international shellac unit value realisation and sticklac price spread. This price spread was as low as Rs.183.8 in 1969-70 and was as high as nearly Rs.1570 in 1974-75. Within this wide range, there have been a good deal of fluctuations in the level of price spread between the primary and terminal price of lac. The percentage share of sticklac prices in unit value realised in export markets has also varied a great deal from less than 30 percent during the last three years or 50 to between 50 and 60 percent during the first half of the seventies. In 1969-70, it was at a level of 43.6 percent.

During periods of high and rising prices the sticklac growers have fared better than they did during periods of low and falling prices. It implies that when the going is not good in lac trade, the brunt is borne by the sticklac growers - the weakest link in the chain.

So far we have discussed the differences between the prices of lac at its different stages of production. In the accompanying three graphs we show the annual and quarterly average prices of sticklac, seedlac (Manbhum Baisakhi) and shellac (Lemon I) from 1969 to the first quarter of 1978. As we have seen, though the price spread differs from time to time, the direction of the movement of these prices shows similarity. The fact that these prices move in the same direction, though with different magnitudes, shows that while the economic and market forces make them more in concert, there are many factors which affect the actual size of the difference between these inter-related prices.

The movements in sticklac prices at times move in opposite direction from the movement in sticklac production and at times the two move together. (See Table 7.2 showing index number of sticklac production and prices and also the

graph depicting these movements). If we try to see the association between sticklac prices and exports we find that while over some periods the two move together, during others they behave differently. Moreover, while prices index over this period has gone up from 100 in 1969-70 to over 176 in 1977-78, the index of exports has come down to about 40 from the same base with production index also moving down to 86. There is relatively lesser movement in the level of exports since 1972, while the amplitude of change is relatively small in the case of production since 1974. Price changes, on the other hand, do not show any clear evidence of reduced fluctuations. What one is led to infer from the above observations is that sticklac prices cannot be adequately understood in terms of normal demand-supply-price interaction.

Then, there is the problem of understanding the extent of differences between the prices of sticklac, seedlac and shellac (Calcutta & average world market) prices and the changes which took place in the price-spreads. The non-systematic movements in the price-spreads suggest that they are not particularly affected by the conversion costs from sticklac into seedlac and then into shellac. We did not come

across any evidence of any significant change in the lac technology or changes in factor prices during this period. That means that on technical considerations alone, the price spread should not have varied so much over the period. Then, supply and demand factors should affect sticklac, seedlac and shellac in almost identical manner, because the demand for sticklac and seedlac is derived from the demand for shellac. Similarly, the supply of sticklac, seedlac and shellac also are closely inter-related. However, we can see (see the graphs showing the price spreads together) that the three price spreads behave differently. The price spreads and the changes they underwent cannot, therefore, be adequately understood in terms of either technical factors (cost of conversion) or though the interaction of demand and supply factors.

It is also clear that the price spreads are important in determining the relative shares of lac growers, traders, small and large processors and exporters in the income derived from lac products. Their levels and changes in them affect the relative shares of the different interests out of the final unit price realised from them.

As far as the technical basis of the price spreads is concerned, it must be stated that it depends on the cost of conversion. We have seen earlier (in the chapter on lac production) that 42 to 50 percent conversion rate generally assumed between sticklac and shellac is an under-estimation. In fact, the cost calculations we found in various documents on lac are impressionistic based on information provided by the concerned interests. It is very important to carry out a systematic study of the cost structure of lac in its different stages.

Hence with the presently available information, it is not possible to attempt systematic evaluation of the size of price spreads on the basis of data concerning the cost of processing sticklac into seedlac and shellac. However, the extent of changes in the size of price spreads suggests that there cannot possibly be much of a consistent technological basis behind these changes in the size of price spreads. Nor can prices of inputs going into seedlac and shellac production (labour cost being the most important cost element) be assumed to be moving so frequently and so widely as did the price spreads.

Given the inability of costs of conversion and demand-supply factors to account for the size and changes in price spreads, it seems reasonable to try to understand them in terms of the structure and organisation of activities of lac growing, marketing processing and exports. We have already discussed the socio-economic profile of lac growers. Let us now turn to lac marketing and processing to see if the price spreads determining relative shares of various interests in income arising out of lac can be better understood through an exercise of relating the size of price spreads and their changes to the market structure and the degree of its perfection.

Marketing of lac starts from the growers and extends upto the exports of various kinds of lac products. Enough is known about the structure and organisation of lac marketing, which we have put together in the following pages*. It is based on various secondary sources and discussions with informed people and organisations concerned with lac. In addition, we conducted a detailed survey of a sample of haats and various types of traders operating in them in the three districts, on the basis

*An Interim Note on Lac Marketing was forwarded to the Ministry of Home Affairs in April, 1978, and to the Chhotanagpur and Santhal Pragana Regional Development Authority, Ranchi.

of which we not only have a more upto-date picture of the system of lac marketing but can also have an idea of some approximate quantitative relationships involved. In the following, we highlight the role of market structure and marketing practices and important changes which have come about in these matters lately. Since our conclusions are based on a sample survey on one particular haat day, the information thrown up can only be considered indicative of trends rather than represent well-established and precise relationships.

The first point in lac marketing is either the village itself or the weekly primary haats. The village itself no longer remains an important sales points for lac (with about 6.5 percent selling lac there). The major sales points for are lac/primary haats which serve a cluster of villages. Our Survey showed that while about one-fifth of the haats served upto ten villages and another one-fifth between 21 to 30 villages, about three-fifths of the haats served between 10 to 20 villages. There were very few haats which were the market centres for over 30 villages (See Table 7.12). These bigger haats may well be considered central haats. Our data suggest that a large number (about 53 percent) of the primary haats

are located within ten kilometers of a central haat. About one-third of the haats are within 11 to 20 kilometers of a central haat. Only about one-tenth of the haats are remote in the sense of being within 21 to 30 kilometers of a central haat (See Table 7.13).

Another interesting feature of the location of haats is their distance from a seedlac and/or shellac factory. Only about 4 percent of the haats do not have a lac processing factory within 40 kilometers. About two-thirds of haats have lac processing factories within 20 kilometers, with a larger fraction being located within ten kilometers of a seedlac/shellac factory (See Table 7.14). Given the scattered nature of lac production, small size of villages, hilly terrain and low level of per capita income, indicating low level of purchasing power, the number of primary haats and their scattering around central haats and lac processing factories do not seem to be inadequate. As we have seen in the Chapter on the Socio-Economic Profile of Growers, the average transport expenditure per household comes to about half a rupee per haat day. Since most of the growers walk to the haat (about three-fourths) the main cost is physical. As we have seen earlier, the average reported distance of a haat

from a growers' residence is 4.33 miles. Only about one-fourth of the households report having to travel more than 6 miles in order to reach a haat. No wonder that about three-fourths of the growers walk on foot to the haats. Since most of the growers (over 80 percent) sell their sticklac in the primary haats and another 13 percent in central haats, it can be taken to be another indicator of fairly convenient location and in adequate numbers of primary haats.

In fact, the data concerning infra-structural facilities available at the haats, like a good many of them (over three-fourths) being located within 5 kms. of a railhead, all of them being within 3 kms. of pucca road with over 80 percent being within one kilometer of it, also indicate that the physical and infra-structural bottlenecks cannot be considered significant. With a good deal of investment under the plans on these heads and a good concentration of mining and industries in these areas except in Palamu, the physical facilities cannot be considered big bottlenecks. However our discussions showed that parts of Palamu district lag behind in these facilities.

Then, who benefits from these facilities and in what proportions are different questions. Roads, railways, banks,

close enough location of the Block Development Office, bring in some higher order central services for an important activity like marketing. But this by itself is largely a facilitating factor; as far as the sharing of these facilities is concerned, much depends on the structure of economic activities and the relative position of different participants in economic activities. Lac marketing can be no exception to this rule. In the early phases of development efforts, emphasis was largely on making certain facilities available. Now that some appreciable progress seems to have been recorded on these matters, the issue really becomes one of relative impact of these facilities on the various interests. Our analysis of price-spreads has indicated the relatively disadvantageous position of a large number of small lac growers continues to remain unchanged.

This takes us to some other aspects of the haats. All these haats are not only multi-product haats but in fact, are the centres of major economic transactions (apart from their other important social roles) of the feeder villages with each other as well as with the rest of the region and wider area. The only major commodities which are out of the purview of the haats (as far as the rural, primary sector population is concerned)

are labour and, to a lesser extent, money and credit. These haats are major commodity and produce markets covering final consumer goods, intermediate products and capital goods. They are also cattle and bird markets.

The role of lac in these periodic (weekly and/or bi-weekly) haats has to be viewed in the context of the mixed, multi-commodity nature of these markets. For example, lac transactions constitute only a small fraction of the total turnover. While many of the haats are "owned" and "managed" by local bodies, about 40 percent of our sample haats are subject to auction to haat contractors who are supposed to provide some facilities and levy some market charges from the sellers. Normally the term of such contracts is one year.

According to our survey the average auction value of the sample haats amounts to Rs.5737.45 per term. About 27 percent of ^{the} haats had auction value upto Rs.500 and another 27 percent paid auction value ranging between Rs.500 and Rs.1500. About 36 percent paid auction charges ranging between Rs.6000 to Rs.25000 (See Table 7.15).

Since only a small fraction of the turnover can be collected by the haat contractor as market charges, the auction values and the large number of goods traded give some indication

of the size of turnover of the haats. Lac turnover is only a small fraction of the total turnover. Table 7.16 presents our data regarding the range of turnover of lac in our haats. We find that about 75 percent of the haats have lac turnover of less than 60 metric tons. The 1978 data are on the lower side owing to a rather poor crop that year. The average annual lac sales per household at 41.58 kgs. also indicate that earnings from it are only a subsidiary addition to the income of the growers.

If all the four lac season market arrivals are spread over 40 weeks a year, the average weekly sale of lac per household will be about one kilogram. However, it is clear that lac is only one of the many commodities which are traded in the haats. Hence, generally it is difficult to pinpoint someone as an exclusive lac seller in a particular haat; everyone sells a few commodities and buys a few others. We have seen that over half the number of grower households sell other MFPs than lac, about 15 percent cereals, 3.2 percent vegetables, 2 percent crafts and about a fourth miscellaneous goods like poultry products, dairy products, fish, implements etc. We have also seen that about two-thirds of lac growers spend all their earnings from lac on a haat day on the purchase of other goods on the same day. We

have also seen that 90 percent of such spending is on household consumption goods. Another dimension of the organisation and working of haats refers to the marketing costs. Apart from transport charges, the other element of direct marketing cost relates to market charges levied from the sellers of various commodities. Whatever might be the legal position, we found that market charges differ from haat to haat. Our Survey of growers showed that the average market charges for lac for a day about come to/47 paise. The direct market charges do not appear to be heavy and even if regulated markets are introduced, it may be difficult to bring them lower. The real cost of marketing in the haats are of a different type. Our discussions with various groups operating in the haats showed that the market charges may not constitute the main source of earning for the market contractor.

Owing to the mixing up of produce market and consumer goods market in the haats (being the most important contact point for the dispersed primary sector rural population with the rest of the economy), and the distance covered by the growers to reach haats, the growers have very low retention price. This is because they need cash to buy their necessities

and the cost of taking back the produce and bringing to a different haat or to the same on a different haat day (both real and money cost) may be too much in relation to the gain by so doing. Hence the part of the produce which they are unable to sell, they part with at throw-away prices. This reduces their earnings from their produce and increase the effective cost of marketing.

This general feature of the weekly haats is important in the case of lac as well. We have seen that 90 percent of the lac is sold by the growers to the paikars. This does not refer to the unsold quantities which they have to part with on the basis of their low reserve price to agent of market contractor, arhatias, rakhiwals, etc.. Compared to the situation in the past (as discussed earlier), the importance of the arhatias is now reduced and that of paikars increased,

In our survey of haats, we tried to ascertain if there are any identifiable dominant buyers of lac. Though it was a difficult question to evoke adequate response, we found that for over sixty percent of haats we could obtain a list of dominant buyers of lac; the number of such buyers ranging between 2 and 14 with two haats returning an unspecified number

in the form of "factory agents" from a nearby town. Thus, there is reason to believe that among the paikars there is a fair degree of variation in size, ranging from the big, well-known paikars to any person of small means who tries to earn some money by trading in lac. In a situation of shortage of income and work opportunities, many small work opportunities attract a lot of floating, surplus manpower. We have seen in our visits to the haats evidence of such small, non-specialised paikars buying lac when /few opportunities for trading available. it seemed to offer comparatively good returns, or was one of the

Our survey of a sample of traders included paikars as well. We found (See Table 7.17) that per kilogram of lac the profit margin of the paikars ranged between 10 paise to 70 paise, with 15 paise as average profit per kilogram. It can be seen that about half the number of paikars operate at 10 to 20 paise per kilogram of margin. Only a small number of paikars operated at margins ranging between 50 to 70 paise per kilogram*. The paikars supply

*We consider our margins data fairly reliable because they are not based on direct question about the margin at which the paikars operate. Rather, at two different points in the course of canvassing the questionnaire, we ask questions about the buying and selling prices. Then we worked out the margin per kilogram.

sticklac to arhatias, bhattawalas (i.e. small seedlac/shellac factories), factory agents, etc. We learnt that either the paikars have specific orders from these buyers or at least have an understanding with them. The orders/understanding refer to both quantities and prices; at times also to quality or strain of sticklac needed. It is also not uncommon to find paikars who take advance from either arhatias, kothiwalas, factory agents etc. in the form of trade credits.

7 Paikars, then, are a very numerous body with differentiation in their sioco-economic status. We found that though a large number of them (over 62 percent) come from traditional trading communities, one may find about one-sixth of them from among tribals (Table 7.18). The Baniyas and Kayasthas taken together constitute about three-fourths of paikars with brahmins constituting another one-twelfth of them. It appears, then, that the paikars, by and large, belong to the intermediate strata of society. As expected, they have much higher literacy and educational level than compared to the overall level or the level found among growers. About 55 percent of them have various levels of education. Thus, one can see that a large number of paikars who can be seen hanging around a haat are a reflection of

the paucity of employment opportunities for the relatively better educated middle classes. Their average family size was found to be 6.4 (See Table 7.19). Since their women folk do not work outside their houses, the worker - non-worker ratio was found to be 44.7 percent. The workers constituted only about a fourth of their total population. Table 7.20 shows the age-sex composition of the trader households. They have relatively fewer females in comparison to the national average. Of those in the 16 to 60 age group, only about 23 percent are workers while about 2 percent of about 60 years of age also work. On the whole, the paikars appear to be a relatively not-so-well-off a group of people. We did not enquire about their income levels through the questionnaire method because of anticipated antipathy and non-reliability about such matters. However, the available evidence and large scale sharing of a relatively small turn-over along with low ^{among them} workers' ratio/indicate that they are not a prosperous section of society. Lac comes handy as one of the commodities to trade in for earning some money through its quick turnover. Their profit margins are modest, among other reasons, possibly on account of the competition among a large number of them.

What is the impact of the marketing organisation through haats on the process of pricing of sticklac? We obtained

information on this issue through our discussions as well as through our survey data.

For one thing, the marketing process is of an impersonal character. There is no evidence of tied sale as may be expected owing to poverty, debts (we could obtain very little information on this issue in our survey of growers) and presence of tribals. In fact, about 90 percent of the growers reported absence of personal acquaintance with the buyers of lac (Table 7.21). Then, most of the sales are against cash, only in 3 percent cases sales against means other than cash was reported. Here the impact of mixing up of the produce and the consumer goods market shows up in the form of about two thirds of growers reporting spending of all the income from lac on the same haat day in the haat itself. What follows from the above is that two important features of primitive marketing viz., personal bond or nexus between buyers and sellers and absence of money as a medium of exchange, are not present in the weekly haats of the three districts. However, bulk of the money earned by selling their produce is spent immediately on the purchase of their daily necessities. The structure of the market for lac, then, suggests following important features as far as the pricing processes of lac are concerned :

(i) A large number of growers bring in small quantities of their uncertain and fluctuating production. Since bulk of the sale proceeds are spent on immediate purchase of consumer goods, it may be inferred that the need for cash in order to buy consumer goods may well determine the frequency and quantum of lac marketing by the growers (provided the total crop level is given).

The cost of coming to haat is largely in terms of time and physical exertion. However, these factors, along with the absence of better prospects if they postpone the sale of the wares already brought to the market, are likely to bring down the price/of the growers to a rather low level.

(ii) Paikars, the most important buyers of lac in the haats, are a large number of middlemen of modest means with small turnover. They generally deal in a large number of products and easily switch from one product to another. They are a fairly differentiated group with a small number of big paikars. Apart from them, arhatias, agents of factories, agents of market contractors and Rakhiwals also play a subsidiary role in buying lac.

(iii) The paikars and arhatias buy lac in order to sell it to factories and/or their agents. When the number of small

factories (Kothiwals) increases, as it did in the recent past, the number of buyers from paikars and haratias goes up. However, as we have seen, there are a few big manufacturer-exporters and the bulk of the demand comes from them. Since the paikars buy either directly or indirectly on account of the Kothiwals and big manufacturers (in Chotanagpur, Balrampur and Calcutta), the level of their purchases and the prices offered by them are greatly influenced by what they are able to sell off to these relatively fewer numbers and the prices they are able to obtain from them.

In fact, we were told that there exists a good system of communication between the processors/exporters of lac and the up country intermediaries. The processors/exporters also have their own direct purchase arrangements on a modest scale and also have a very extensive information system on crop prospects, quality, rate of arrivals in the haats, past stock position and market trends in the haats. As we have seen earlier, bulk of the market arrivals are in the first few weeks of a season. Since the few terminal buyers have fairly reliable estimates of crop prospects and arrival pattern along with the trends in the demand for lac in world markets, their inquiries in the up country lac

markets to the bigger paikars and arhatias set the tone of the market. The orders or likely magnitude of purchases by the manufacturers and exporters along with the prices they indicate seem to determine the paikars prices and the level of their operations. In our discussions with the paikars, it came almost invariably that the prices they offer to the growers are, by and large, based on the word from places like Balrampur and Calcutta etc.

In our field visits we found little evidence of market arrivals having much impact on lac prices. Even on the basis of arrival data and prices, one cannot see the level of arrivals having any systematic and the theoretically regular impact on sticklac prices. The accompanying graphs on the pattern of arrivals and prices in a few selected markets for different periods of time show that while arrivals are generally heavy in the first few fortnights of a season, prices generally show a rising trend from the low opening prices of a particular season.

Furthermore, we find that the haat is an unimportant source of knowledge to the growers about prices (for about 5 percent), in comparison to the traders (paikars provide this information to about 62 percent and arhatias to about 11 percent).

It can be taken as an evidence of paikars fixing prices on the basis of advice from manufacturers and exporters etc. rather than the competition among paikars for obtaining the market arrivals and the relative position of arrivals and demand determining prices. If the latter processes were to determine prices, the growers would come to know prices in the haat rather than through paikars, a good number of whom, as we have seen elsewhere, quote different prices. If the market arrivals were to have discernible impact on prices, the grower's price expectations would generally turn out to be self-^{filling}-full- /because the variable (market arrivals) is largely under their (grower's) control. Our survey data show that only in about two-fifths of cases grower's price expectations are often realised, while in about 55 percent cases these expectations are never fulfilled. In this connection, it must be kept in mind that even in the formation of price expectations, actual immediate price behaviour plays a significant role and hence grower's price expectations need not be unduly favourable to their own interests.

On the basis of the above, we can conclude that sticklac prices are generally greatly influenced by the powerful concentrated manufacturing and export sector of shellac. Since the bigger manufacturers themselves undertake exports on a significant

scale, it is apparent that they will give first priority to the export of their own output except when they suffer from a cost disadvantage vis-a-vis the smaller manufacturer. There is no a priori or empirical evidence to suggest that the big manufacturers are subject to any such cost disadvantage. On the other hand, in the case of machine-made shellac, they have a relative advantage over the hand-shellac producers. The fact that the Calcutta prices of shellac are lower than the average international price (as seen earlier) suggest that the smaller non-exporting manufacturer get lower price for their shellac than the bigger ones who are themselves exporters. Even the official cost calculations allow profit margin for exports as well as for production separately even in cases when the two activities are integrated, thus allowing substantial returns to the few manufacturer-exporters. Hence the paikars are ultimately dependent largely on the purchases by the big manufacturers and exporters. The level of off-take by the big terminal buyers sets the pace for sticklac in the primary and central haats. The price spreads, we have seen, show a pattern of behaviour which

is beneficial to the manufacturer-exporters. Such a behaviour of the price spreads has emerged on account of the strength of the manufacturers and exporters in the entire spectrum of production, marketing, processing and exports.

How has government intervention in lac marketing changed the position ? Before we take up a study of the impact of important specific policies, it can be said at the outset that if the policies were aimed at (i) imparting stability, (ii) ensuring a remunerative price to the growers, and (iii) keeping the price spread between international shellac and upcountry sticklac prices within a reasonable level favourable to the interests of the growers, then the analysis of price movements we have presented earlier shows that none of these objectives have been achieved. If the objective was (iv) to get a better realisation in terms of unit export earnings, then the data on unit value realisation show that commendable success has been achieved. However, we have shown earlier that fulfilment of this objective does not lead to helpful income and employment consequences in the home economy, particularly for the lac growers, workers in lac factories and other smaller interests involved in lac. Nor does it help increase our total export earnings substantially because it is

widely suspected that high unit value obtained from shellac leads to loss of markets.

However, let us look at the important policy interventions individually. V. Jha Committee (1954) and others have blamed Fataka in lac as an instability causing factor. Government of India, by notification No. 30/16/54/IP (B) dated 27 November, 1954, banned forward contracts, other than specific delivery contracts, in all commercial grades of shellac and seedlac. We could not get any information on the exact modus operandi of forward trading in lac. Nor was any information available on how the ban operated. But we do find continuation of fluctuating prices of lac products. Hence it is obvious that the ban on forward contracts by itself could not bring about stability in lac prices.

Another important policy came into operation from 23 June, 1958 when a Minimum Export Price (MEP) for shellac was introduced. In the Chapter on "Lac Economy : A Historical Perspective", we have discussed the objectives and modus operandi of this policy. In Table 7.10 we compare the MEP, average international price and Calcutta Shellac (Lemon I) prices. It can be seen that, by and large, international average price has been higher than the

MEP since 1969. Actually, MEP was revised upward in 1973-74 and in 1974-75, following the so-called oil crisis led spurt in shellac prices and poor production. Another big increase (of over 400 percent) was sanctioned in May 1974. The spread between MEP and average international price kept ^{on} rising and became about Rs. 2138 per quintal in 1973-74 ! Even after an over 400 percent upward revision, the MEP remained lower than the unit value realised in the world markets by about 10 percent. After the steep rise of 1974-75, unit value realisation began to decline and MEP was lowered three times during 1975. It was only after the Third downward revision that the unit value realisation could exceed the MEP. What emerges is that when the downward trend in world prices persisted and MEP remained pegged at a higher level, it could not prevent exports at prices lower than its officially determined level. In fact, when the downward trend persisted, MEP was at last withdrawn in 1976.

Thus, the policy of fixing MEP succeeded partially in providing a floor below which world prices could not fall. In so far as the MEP helped in keeping shellac prices high, without ensuring a trickling down of its benefits to the sticklac growers, it led to a wider prices-spread. However, in the later period,

the option was either to bring down MEP drastically to keep in line with the falling world prices or to withdraw it. It means that the success of MEP depended on the level at which it was fixed. When the market forces brought down prices, MEP could not prevent it. It must be remembered that it happened despite supplementing the policy with that of partial canalisation.

Our analysis of price spreads has shown that MEP policy could not ensure stable and remunerative returns to the sticklac growers. In June 1975 the policy of MEP was replaced by that of canalisation through the State Trading Corporation and maintenance of buffer stocks of seedlac bought from the growers at a price of Rs.3 per kg. (50 Chauriparta or lac-content basis).

As an official document on lac puts it, "Taking advantage of oil crisis in 1974 and fall in production, the MEP was fixed at a very high level. As the production increased in two producing countries and the initial effect of oil price hike tapered off, there was persistent demand for reduction of MEP, so that export of lac could be increased. In the meantime, during 1975, it was observed that there was considerable profit in export of lac due to lower price being paid to growers for their sticklac which was in excess supply. In order to

increase our exports and to mop up extra profits in exports, the export of lac was canalised through S.T.C. At the time, in order to remove extra sticklac from the domestic market and to ensure fair remunerative price to tribal growers, the S.T.C. was asked to undertake buffer stock/price support operations. The S.T.C. was allowed to operate informal MEP in accordance with its commercial discretion. Since the S.T.C. did not have the required expertise in export of lac and in order to utilise the help of established channels of trade, private exporters were allowed to export five M.T. at a time. The exporters were to compulsarily lift 40 percent of seedlac from buffer stocks of S.T.C. against their exports of shellac".

As we have seen above, there were doubts about S.T.C.'s expertise to handle lac exports. The private trade, especially owing to its highly concentrated nature with a few big concerns handling huge quantities both in relative and absolute terms, resented the encroachment by S.T.C. on their export business. As a result of their pressure and S.T.C.'s lac of expertise in handling the expertise, there were successive measures of liberalisation of the canalisation order. These liberalisations consisted of :-

- (1) reduction and abolition of MEP,
- (2) removal of quantitative restriction on exports by private trade,
- (3) Obligatory lifting of seedlac from the S.T.C.'s buffer stocks against actual exports; the proportions ranging from 40 percent to 65 percent to 70 percent during different periods and subsequent reductions in it to 30 percent for ordinary and 40 percent for superior grades,
- (4) Changes in the S.T.C.'s services charges from private exporters,
- (5) re-introduction of MEP from November 1977 in order to restrain inter se competition amongst private exporters.

The results of these frequently changing policies are reflected in the changing shares of the S.T.C. and private trade in exports as shown in the Table given below:

RELATIVE SHARES OF S.T.C. AND PRIVATE TRADE
IN EXPORTS OF SHELLAC AND SEEDLAC.
(1975-76 to 20.11.77)

	1975-76				1976-77				1977-78 (20.11.1977)			
	S.T.C. EXPORT	PVT. EXPORT	TOTAL EXPORT	(%)	S.T.C. EXPORT	PVT. EXPORT	TOTAL EXPORT	(%)	S.T.C. EXPORT	PVT. EXPORT	TOTAL EXPORT	(%)
Shellac	2399 (52.13%)	2203 (47.87%)	4602 (100%)		1383 (24.79%)	4196 (75.21%)	5579 (100%)		1083 (40.67%)	1580 (59.33%)	2663 (100%)	
Seedlac	824 (10.53)	7001 (89.47)	7825 (100%)		78 (1.11)	6962 (98.89)	7040 (100%)		2 (0.83)	241 (99.17)	243 (100%)	

(FIGURES IN BRACKET REPRESENT THE PERCENTAGE OF TOTAL EXPORTS)

SOURCE A note entitled "LAC" Ministry of Commerce, Government of India

If one purpose of partial canalisation of lac exports was to share in a very lucrative exports, the low and fluctuating level of S.T.C.'s share in exports shows that it was only partially met, and was virtually given up in 1977-78.

But a related objective of the policy package was to remove extra sticklac from the domestic market and ensure a fair remunerative price to tribal growers. This was sought to be achieved by purchasing sticklac at a remunerative price of Rs.3/- per kg. to begin with which was to be raised subsequently (on 50 per cent yield basis) as suggested by a Working Group set up in September 1975 (about four months after the decision to go in for buffer stock and support price policy). These stocks bought through the agencies of the State Governments of the lac growing States (with only Bihar and West Bengal coming forward to undertake the task) were to be converted into seedlac for purposes of building up buffer stocks. The obligatory lifting of these stocks from STC by private trade against exports was the mechanism for the disposal of the buffer stocks by the S.T.C.

The actual implementation of the policy started in December 1975, when the bulk of Katki sticklac arrivals (as seen earlier) had already taken place. The State agencies (in the

case of Bihar, Bihar State Export Corporation and Bihar State Cooperative Lac Marketing Federation initially and later on Bihar State Tribal Development Corporation) were given fixed quotas by the S.T.C. and were also provided financial assistance in the form of 10 percent interest free advance adjustable against supplies. After obtaining stocks from the state agencies, the S.T.C. was to arrange air-conditioned storage in Calcutta for the buffer stocks of seedlac.

The Bihar State Export Corporation appointed nearly 50 agents operating in 42 haats who were small manufacturers of seedlac to buy sticklac on its behalf at the support price of the order of its pre-fixed quota directly from the growers, get it processed into seedlac according to quality standards prescribed by the S.T.C. and deliver it to the S.T.C. Administrative checks to ensure the payment of sticklac support price to the growers were made and gone through.

The orders were stipulated to be completed during December 1975 to February 1976. The State agencies were to finance nearly 90 percent of the cost for the buffers and wait for final payment by the S.T.C. till they lift the stocks.

BISCOLAMF procured sticklac through cooperatives, individuals and processing units. Individual agents were appointed

mainly in Palamu owing to the weakness of cooperatives there. Then, some processing units have also been allotted haats for procuring sticklac at the support price for the Bihar State Cooperative Lac Marketing Federation.

The quantity bought at the support price was based on the agreement with the S.T.C. The quota was not only a fraction of the total expected crop but was invariably determined after the marketing season was already on and at the initiative largely of the state agencies. The meetings in different years for fixing such quota and related arrangements were called at the initiative of very many different agencies like S.T.C., Ministry of Agriculture, Tribal Development Department, Ministry of Home Affairs, etc.

As a result of these steps, during 1975-76, 1976-77 and 1977-78, the State agencies procured under the buffer stock and support price scheme 9 percent, 60 percent and about 54 to 59 percent of the estimated production of sticklac. These quantities are supposed to have been bought at Rs.3 per kilogram, which at 50 percent yield would amount to Rs.6 per kg. As against the support price we have seen (Table 4) the average all-India prices for the different crops during the period under reference

approached the support price level only for the Kusumi crop; for the rest of the seasons it has ranged between Rs.204 and Rs.405 per quintal. It is universally agreed that the growers obtained much less than the support price*. That is to say, even the amount disbursed by the agencies of the State governments on behalf of the STC did not fully reach the growers.

As to the objective of promoting exports, neither the quantity of exports could go beyond about 7000 m. tons, nor could the fall in unit value realisation be prevented. The policy package of partial canalisation, buffer stocks, compulsory lifting of seedlac from STC stocks, many variations in these matters from time to time, a virtual stoppage of exports of seedlac and the policy of support price turned out to be a failure. The scene of the lac trade remained a little more confused than before.

In retrospect, one can see so many factors which prevented a better outcome than what actually transpired.

To begin with partial canalisation and flexible MEP at the commercial discretion of the STC could not have pushed up exports. In fact, there was some resentment in private trade circles about

*See SEPC and Commerce Ministry Notes.

the exports by STC at prices which were lower than MEP. Whatever the merits or demerits of such exports, they led to lower unit value realisation. As is well-known, shellac is a branded product sold on the basis of established brand names of a few big manufacturer-exporters and hence it can not easily be marketed by parties other than the traditional exporters who are vertically integrated with shellac production. This is so particularly if these established exporters continue to remain in the market with permission to export in small lots. Apart from the brand name preference in the world market, there exists traditional close-knit buyer-seller link-up, particularly in the West German and the U.S. Markets, between India's traditional major exporters and their main overseas customers. One can well imagine the reaction of such well placed private exporters when orders for quantities more than 5 m. tons of shellac were executed by STC to their (i.e. private exporters) traditional customers, on the basis of quantities produced by them. The STC used to obtain fortnightly offers from the manufacturer-exporters and merchant-exporters and for the rest some kind of lowest tenders were accepted.

What is recognised in STC and Commerce Ministry circles as lack to expertise in handling lac exports is in reality a

complex of factors about the structure of the market which is dominated by a few big ones, with monopolistic traits like product differentiation, strong buyer preference, etc. The data we have given earlier concerning the concentration of lac exports from the top three exporters were higher in 1977 than in 1975; in fact, only for one firm there was a small shortfall in 1976 over the 1975 level which was more than made good in 1977, all the rest have had a consistent expansion of their exports during the whole period of canalisation.

These limitations of policies concerning lac can be understood in various forms. At the simplest, one can see some administrative organisational factors which led to poor results from these policies. These refer to limitations in the implementation of these policies. Apart from unstable and frequently changing details of these policies, lack of experience and expertise can also be blamed. More seriously, as our Report shows, an adequate socio-economic analysis of the activities concerning lac was not available to throw up either an appropriate policy-mix or an adequate strategy of implementation.

For example, the buffer stock operations were started too late after a fairly good part of the crop moved away from

the hands of the growers. This happened not only in the first year, when it could have been, to an extent, understandable but even in the subsequent years. The level at which the buffer stocks (by definition consciously determined level of stocks rather than involuntary inventory build up of the unsold quantities) were to be maintained, the principles for determining such a level and the quotas of various states and their procurement were not fixed.

Implications of buying only a small fraction of the total sticklac output, particularly when it is known that, other things being equal, it is easier for non-growers to take advantage of the support price than it is for growers, were not worked out. Consequently, support price could not influence the market price. On the contrary, it became a means for some people to pocket the difference between the support price and the market price.

The State agencies may have done their best at the administrative level to see that leakages are prevented. But given slac market demand and good crop, unorganised and dispersed buying in the haats, largely through existing market channels, late entry, poor coverage of remote and interior markets because no allowance was made for costs of procurements, it would have

been unreasonable to expect the support price to actually materialise. It may be observed that when the crop was poor in 1978, the reduced support price (Rs.2.25 per kg.) came to prevail in most haats and it was observed in our field visits that very little sticklac was being sold to the State agencies.

The inability to reach the support price to the growers meant that the benefit of the policy were accruing to some other interests. The chain of intermediaries was not reduced; instead the State agencies were added on to the existing channels. Moreover, the State agencies, who may be expected to have relatively higher handling charges than private traders, were not operating at no profit no loss. In fact, they are reported to have made tidy profits through the buffer stock operations.

Since the STC must relate the cost of seedlac it buys from the State agencies to what it can earn by exporting, the State agencies margins were an avoidable increment to the cost of seedlac. Since the STC accumulated unwanted level of stocks of seedlac, the State agencies margin became an extra cost entailed by the operation of this policy as far as the STC was concerned. Though it should have become clear that the support price can not reach growers, this fact led to the emergence of

many interests which were really benefitting through a policy operated in the name of the growers. These interests also seem to have played their part in seeing to it that this policy is prolonged even after its inadequacy was demonstrated.

Apart from the factors discussed so far, two other factors also played an important part in the failure of these policies.

The first one concerns the choice of the form in which the buffer stocks are to be maintained. Lac products were facing an uncertain and shrinking market in the face of good supply position. The shelf life of seedlac is not very long and after 12 months its quality starts to deteriorate. It requires costly storage in air-conditioned godowns. Since these facilities are available largely at Calcutta, the whole stock has to be transported to Calcutta. When the exporters lift their obligatory quota of seedlac against exports, they may have to transport it back to other areas for processing into shellac. All these increase the cost.

As against these factors, sticklac can last somewhat longer and in case the stocks remain unsold, atleast the cost of processing into seedlac is saved. Moreover, it is easier

to store sticklac and in centres close to haats and shellac factories. Thus the choice of the form in which the buffer stocks were maintained could not be considered the best possible.

In May, 1978, the Commerce Ministry, Government of India, constituted a Study Team to examine the feasibility of conducting procurement and buffer stock operations in the States of Bihar and West Bengal in the form of sticklac and recommend modalities of operation designed to minimize operating cost while ensuring that full benefits of price support percolate to the tribal growers.

Though the Committee felt that "Presently no technical data is available on shelf life and storage etc. of sticklac" and ILRI, Directorate of Lac Development and BSCOLAMF have been requested to undertake studies on these issues", it appears to us from the evidence given by many agencies that an immediate shifting to buffer stocking in terms of sticklac instead of seedlac would only be advantageous. For example, "according to the costings of BISCOLAMF the cost of storage of sticklac in the proposed regional godowns at Ranchi comes to Rs.130/- per m.ton per annum (equivalent to Rs.260/- PMT of seedlac on 50 percent yield per annum) as against (a) the cost of storage of Rs.260 PMT

of seedlac per annum in the proposed air-conditioned godown at Ranchi and (b) the storage charge of Rs.320 PMT of seedlac per annum being paid at Calcutta at present". Hence, taking account of the other factors like avoidance of cross movement, conversion into seedlac/shellac according to known pattern of demand, better shelf life, possibility of storage in the interior close to haats and shellac processing facilities, etc. there is nothing to be lost by maintaining stocks in terms of sticklac, while some limitations and shortcomings of stocking seedlac would be avoided*.

On top of this, the concentration of exports in the hands of a few firms which remained undiminished despite partial canalisation (STC's share coming down to less than one per cent) and the subsequent doing away with canalisation, created some problems in the implementation of these policies. This is over and above the modifications and watering down in the form of reduction in the proportion of seedlac lifted against exports, permission to export larger quantities, changes in MEP, etc. which these powerful interests were able to secure.

* All the passages quoted in this paragraph are taken from the Report under reference.

As a result of vertical integration of seedlac/shellac manufacturing and exports, it was widely believed (as Commerce Ministry & STC sources maintained and found on the basis of quality tests of seedlac obtained from these sources after three months) that there is recycling of seedlac lifted by the exporters back to STC as procured seedlac. Since in the open market low-priced seedlac and sticklac were available, the processing for exports was done on the basis of open market supplied, low-priced sticklac/seedlac and thus higher profits were obtained by the exporters and the growers were deprived of the support price. The STC was left with its own seedlac recycled to it and the higher procurement price could not percolate down to the growers.

In fact, since the role of private trade in exports could not be curtailed during the period, the market forces continued to dominate. Important among these market forces were slack demand, good crop with sizeable carry-over from earlier years and domination of the market by a handful of firms. Export promotion measures, as suggested by many experts (e.g. by Kirloskar consultants in their Report) are very costly. The private exporters are doing quite well for themselves without

implementing these costly measures of export promotion. In fact, they have shown little interest even in plough back of profits and R&D. As a Shellac Export Promotion Council document puts it, "Only a very few of those who reaped profit out of this trade ploughed it back into the industry. Those who did it, did not get any incentive and here perhaps lies a wrong and discreminatory attitude for which the responsibility falls both on the council and the Government. As a result, there has been little capital investment in the lac trade. Some of the companies, including the strongest, are sick". In fact, apart from taking step to promote exports, it was absolutely necessary to develop home consumption and many industrial uses of lac. The lac industry, especially Bihar and West Bengal based export-oriented units, did almost nothing in these directions. It appears that the home market is largely catered to by Maharashtra based units. As we have seen, the financial interests of shellac producers-cum-exporters were unaffected by the decline in exports and they did quite well for themselves even without the steps for export promotion and development of home consumption. Their interest did not lie necessarily in quantitative expansion of exports, as we have seen earlier.

Thus the administrative organisational limitations of buffer-stock, support price - canalisation policies are only a small part of the failure; the major part of the blame rests at the doors of the structure and domination of the trade by a few business houses, who use their powerful presence to bend these policies to their own advantage, partly through the operation of administrative mechanisms but largely through the use of market forces.

The irony of these policies comes out sharply when one comes across the later phase of these policies. The buffer stocks should have come handy to meet the shortfall in sticklac production during 1978. Even after making adjustments for deterioration in the quality of seedlac and price discounts, mixing up of the carryover stocks with new stocks could have increased total supplies. That, in any case, is the rationale of buffer stocks. It should have been possible to procure on a monopoly basis the new crop, which was around 40 per cent of the 1977 level. See the Table below showing steep fall in production :-

(M/T)

	Revised Baisakhi 1978	Field Baisakhi 1977
1. Bihar	4317	11958
2. Madhya Pradesh	673	1830
3. West Bengal	534	2063
4. Uttar Pradesh	280	850
5. Maharashtra	41	66
6. Others	50	150
7. Total	<u>5895</u>	<u>16917</u>

(Report of the Study Team, Ministry of Commerce, GOI, 1978)

In these circumstances the support price could have been, if not raised beyond Rs.3/- per kg.; atleast maintained at this level. As the Study Team (May 1978) says that the prevalent open market price of sticklac were much higher than the stipulated procurement price of Rs.2.25 per kg. But forgetting the logic of buffer stocks, viz. that of evening out supplies over good and

poor years, the support price was reduced to Rs.2.25 per kg. With canalisation gone and market prices rising, the support price tended to become a sort of floor price. The grower obviously could not benefit from a short crop, nor could stability ensured in supplies to World markets.

The foregoing analysis of the policies concerning lac, seen in the light of the structure of lac production, marketing and exports shows how the interests of the growers are sacrificed. This is something inherent in the structure of this industry. The policies so far have shown little appreciation of these structural aspects. Hence the adhocism and poor results in terms of the stated goal of helping the growers. As we shall discuss in our Chapter on Policy Recommendations, the lac industry needs some structural solutions.

Table No. 7.1

Average annual Price of Sticklac, Seedlac and Sheelac

Period	Sticklac (Rs. per quintal)	Percentage change in Price over the pre- ceding year	Seedlac	Percentage change in Price over the prece- ding year	Shedlac (Rs. per quintal)	Percentage change in Price over the preceding year
1	2	3	4	5	6	7
1969	141.9		190.7		260.5	
1970	223.5	(57.51)	279.57	(46.60)	356.08	(26.69)
1971	279.9	(25.23)	364.38	(30.34)	464.5	(30.45)
1972	468.5	(67.38)	626.25	(71.67)	808.83	(74.13)
1973	1556.2	(232.17)	1885.25	(201.04)	2112.71	(161.21)
1974	1808.1	(16.19)	2313.13	(22.70)	2569.08	(21.60)
1975	456.9	(-79.73)	697.08	(-69.86)	842.75	(-67.20)
1976	366.9	(-19.70)	449.54	(-35.51)	643.63	(-28.63)
1977	251.1	(-31.56)	318.63	(-29.12)	439.58	(-31.70)
1978	277.9		240.0	(-24.68)	373.0	(-15.15)

Source: Fortnightly Bulletins of the Directorate of Lac Development, Government of India, Ranchi, various issues for the entire period under reference.

Table-7.2

Table showing Annual Average Price Index of Sticklac,
Annual Production Index of Sticklac, Annual Export
Index of Lac (All kinds) in terms of Sticklac equivalent.
(Base Year - 1969)

.....

Year	Annual Average Price Index of Sticklac	Triennial Average	Annual Production Index of Sticklac	Annual Export Index of Lac (All kinds) In Terms of Sticklac equivalent
1969-70	100.0		100.0	100.0
1970-71	157.5	216.20	95.4	79.96
1971-72	197.8		105.7	81.97
1972-73	330.2		66.2	45.2
1973-74	1096.7	1354.31	74.8	33.5
1974-75	1274.2		95.9	43.8
1975-76	321.9		84.6	46.75
1976-77	258.6	359.97	92.7	42.37
1977-78	176.9		86.6	40.03

Source: Calculated on the basis of data given in other
Tables.

Table-7.3
Average quarterly Prices of Sticklac, Seedlac, Shellac (Rs. per quintal)

Year	Sticklac				Seedlac				Shellac			
	Quarters I	II	III	IV	I	II	III	IV	I	II	III	IV
1969	-	107.14	140.0	-	-	169.3	189.7	213.0	-	229.8	263.5	288.0
1970	185.37	183.94	238.68	267.83	229.5	223.5	310.0	355.3	308.0	297.3	297.8	449.7
1971	301.1	262.5	273.1	282.9	403.2	333.0	352.5	367.8	453.5	412.5	450.0	502.2
1972	305.8	360.4	517.6	759.1	411.5	468.8	604.0	1019.7	546.7	620.2	784.0	1304.3
1973	909.4	1238.7	1840.5	2190.9	1117.0	1498.0	2209.8	2710.7	1399.3	1681.2	2459.2	2931.0
1974	22891.7	1741.4	1550.2	1048.9	3305.2	2597.3	2040.8	1303.7	3672.0	2776.0	2431.2	1547.2
1975	791.3	306.9	318.8	410.6	1233.2	590.5	433.2	526.0	1378.0	779.5	592.0	765.5
1976	355.9	327.2	423.9	360.4	468.2	382.3	447.7	493.0	696.0	641.2	679.3	693.0
1977	308.8	223.8	201.3	270.6	451.0	290.5	283.8	242.2	614.7	463.7	440.0	375.0
1978	277.9	-	-	-	240.0	-	-	-	373.0	-	-	-
Mean Price	720.03	528.00	611.56	64.08	873.20	728.13	763.47	803.49	1053.47	877.93	940.78	1006.

Quarters refer to calendar year quarters

Source: Fortnightly circulars on Lac, Directorate of Lac Development, Ranchi, Various issues for the entire period of reference.

Table - 2.4

Absolute change in the quarterly average price of Sticklac
seedlac and shellac

.....

Year	Sticklac				Seedlac				Shellac			
	Quarters I	II	III	IV	I	II	III	IV	I	II	III	IV
1969	-	32.87	38.47	6.89	-	20.4	23.3	16.5	-	33.7	24.5	20
1970	1.43	54.74	29.15	33.27	-6.0	86.5	45.3	47.9	-10.7	70.5	81.9	43.8
1971	-38.6	10.6	9.8	22.9	-70.2	19.5	15.0	43.7	-81	37.5	52.2	44.5
1972	54.6	157.2	241.5	150.3	57.3	135.2	415.7	97.3	-73.5	163.8	556.3	95.0
1973	329.2	601.9	350.4	700.8	381.0	711.8	500.9	594.5	281.9	778.0	471.8	741.0
1974	-1150.3	-191.2	-501.3	-257.6	-707.9	-556.6	-737.1	-70.5	-896.0	-344.8	-884.0	-169.2
1975	-484.4	11.9	91.8	-54.7	-642.7	-157.3	92.8	-57.8	-598.5	-187.5	173.5	-69.5
1976	-28.7	96.7	-63.5	-51.6	-85.9	65.4	45.3	-42.0	-54.8	38.1	13.7	-78.3
1977	-85.0	-22.5	69.3	17.3	-160.5	-6.7	-41.6	-2.2	-151.0	-23.7	-65.0	-2.0

Note: Calculated from Table-2.

Source: Directorate of Lac Development, Ranchi.

Table No.7.5

Average Seasonal Price of Sticklac (Rs. quintal)

Year	Season			
	Baisakhi	Katki	Jethwi	Aghani
1969-70	125.29	168.17	144.2	243.0
1970-71	215.3	278.16	246.4	381.4
1971-72	267.5	288.92	320.9	383.8
1972-73	475.5	912.59	519.7	1179.2
1973-74	1553.99	2396.86	2009.7	3055.2
1974-75	1516.98	863.61	1844.7	1052.9
1975-76	347.3	382.99	386.0	599.6
1976-77	375.5	300.12	409.4	454.3
1977-78	203.9	216.1	229.8	595.3

Baisakhi - April-October
 Katki - October-March
 Jethwi - June-August
 Aghani - November-March

Source: Fortnightly Circulars on Lac
 Directorate of Lac Development,
 Ranchi, Various issues.

Table No. 7.6

Difference between (a) Annual Average Sticklac and Seedlac prices;
(b) Annual Average Seedlac and Shellac price; (c) Annual Average
Sticklac and Shellac price (in Rupees/quintal).

Year	Difference between Annual Average sticklac & seedlac price	Difference between Annual Average seedlac and shellac price (Rs.)	Difference between Annual Average sticklac and shellac price (Rs.) (Calcutta Prices)
	(a)	(b)	(c)
1969	48.8(34.39)	69.8(36.6)	118.6(83.6)
1970	56.1(29.1)	76.5(27.4)	132.6(59.3)
1971	84.5(30.2)	100.1(27.5)	184.6(65.9)
1972	157.8(33.7)	182.6(29.1)	340.4(72.6)
1973	329.1(21.1)	227.5(12.1)	556.6(35.8)
1974	506.0(28.0)	255.9(11.1)	760.9(42.1)
1975	240.1(52.6)	145.7(20.9)	385.8(84.4)
1976	82.6(22.5)	194.1(43.2)	276.7(75.4)
1977	67.51(26.9)	120.9(37.9)	188.4(75.1)
1978	37.9(-13.6)	133.0(55.4)	95.1(34.2)

Figures in brackets represent percentages, Fortnightly circulars
Source: Directorate of Lac Development, Government of India, Ranchi and
shellac Export Promotion Council Calcutta, Monthly Bulletins,
various issues.

Table No. 7.7
Price spread between international and Calcutta market
prices of Shellac

S.No.	Year	Annual average international Price of shellac (Rs./quintal)	Annual Calcutta market price of shellack (Rs./ quintal (Lemon I)	Price Spread between (3) and (4) (Rs./ quintal)	Calcutta market prices as per cent of international prices of shellac (%)
(1)	(2)	(3)	(4)	(5)	(6)
1	1969-70	325.7	260.5	65.2	80.0
2	1970-71	424.3	356.1	68.2	83.9
3	1971-72	529.4	464.5	64.9	87.7
4	1972-73	846.6	808.8	37.8	95.5
5	1973-74	2766.3	2112.7	653.6	76.4
6	1974-75	3377.00	2569.1	807.9	76.0
7	1975-76	1674.1	842.8	831.3	45.9
8	1976-77	1403.9	643.6	759.8	43.6
9	1977-78	1008.4	438.6	56.8	

Source: Lac Statistics at a glance, 1977.
Shellac Export Promotion Council, Calcutta.

Price spread between sticklac prices and
prices realized from export of shellac

Table No. 7-8

.....

S.No.	Year	Average annual international shellac prices (Rs./quintal)	Average annual sticklac prices (Rs./quintal)	Price spread between sticklac and shellac prices (Rs./ quintal)	Sticklac prices as percent of unit value (%) realisation from shellac exports
1.	1969-70	325.7	141.9	183.8	43.6
2.	1970-71	424.3	223.5	200.8	52.7
3.	1971-72	529.4	279.9	249.5	52.9
4.	1972-73	846.6	468.5	378.1	55.3
5.	1973-74	2766.3	1556.2	1210.1	56.3
6.	1974-75	3377.0	1808.1	1568.9	53.5
7.	1975-76	1674.1	456.9	1217.2	27.3
8.	1976-77	1403.4	336.9	1966.5	24.0
9.	1977-78	1008.4	251.1	757.3	24.9

1. Data from SEPC: Lac Statistics 1977.
2. Data from Directorate of Lac Development, Government of India, Ranchi.

Table No. 7.9

Sticklac and Seedlac prices as percent
of seedlac and shellac price

.....

S.No.	Sticklac as a percentage of seedlac	Seedlac as a per cent age of shellac	Sticklac Price as a percentage of shellac price
1	2	3	4
1969	74.4	73.2	54.1
1970	79.9	78.5	62.7
1971	76.8	78.4	60.3
1972	74.8	77.4	57.9
1973	82.5	89.2	73.6
1974	78.1	90	70.3
1975	65.5	82.7	54.2
1976	81.6	69.8	57.0
1977	78.8	72.5	57.1
1978	115.79	64.3	74.5

Table - 7.10

Table showing Minimum Export Price (MEP), International
and Calcutta Prices of Shellac

.....

Year	Mep (Handmade Lemon I) Rs./ quintal	Inter- national Price (Average) Rs./ quintal	Calcutta Price (Lemon) Rs./ quintal	Difference between Mep and Inter- national price of shellac	(1)-(2) as percent of (1)	Difference between Mep and Calcutta Price of shellac	(1)-(3) as percentage of (1)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1969-70	309.67 (1.11.69)	325.70	260.50	-16.03	-4.92	+49.17	+18.88
1970-71	309.67	425.50	356.80	-115.83	-27.22	-46.41	-10.91
1971-72	309.67	529.40	464.50	-219.73	-41.52	-154.83	-29.25
1972-73	309.67	846.60	808.93	-536.93	-63.42	-499.16	-61.71
1973-74	628.00 (1.4.73)	2766.30	2112.71	-2138.30	-77.30	-1484.71	-70.27
1974-75	3141.33 (30.5.74)	3277.00	2569.08	-235.67	-9.17	+575.25	+22.39
1975-76	2458.67 (14.3.75) 1721.33 (20.6.75) 1377.37 (1.8.75)	1674.10	842.75	+784.57	+46.87	+831.35	+98.65
1976-77	1377.37 upto 17.8.76	1403.40	643.63	-26.03	-1.85	+733.74	+114.00
1977-78	Mep withdrawn	1008.40	439.58	-	-	-	-

Minus - (-) sign indicates that the MEP was lower than the price it is being compared with, and
Plus - (+) denotes that MEP was higher than the compared price.

Table No.7-11

Seedlac prices at international market and Calcutta market, the spread between the two and Calcutta market prices as per cent of international market prices of seedlac

S.No.	Year	International market prices of seedlac (Rs./quintal)	Calcutta market prices of seedlac (Rs./quintal)	Price Spread (Rs./quintal) (3) - (4)	(3) as per cent or (4) %
(1)	(2)	(3)	(4)		
1	1969	201.06	190.70	10.36	94.85
2	1970	270.22	279.57	-9.35	103.46
3	1971	364.17	364.38	-0.21	100.06
4	1972	763.41	626.25	136.95	82.03
5	1973	1950.97	1885.25	65.72	96.63
6	1974	2657.12	2313.13	253.99	87.05
7	1975	969.16	697.08	259.08	71.92
8	1976	1075.26	449.54	625.74	41.81

Contd/...222...

1	2	3	4	5	6
9.	1977	504.70	318.63	186.07	63.13

Source: Iac Statistics, 1977, SEPC, Calcutta and Iac Bulletin
Annual No. 1977-1978, Directorate of Iac Development,
Government of India, Ranchi.

Table No.7.12

Distribution of haats according to
number of feeder villages

(Figures in Percentages)

S.No.	No. of Feeder Villages	Percentage of Haats
1	2	3
1.	0 - 10	19.15
2.	11 - 20	57.7
3.	21 - 30	19.25
4.	31 - 40	3.8
		100.0

Table No. 7.13

Percentage distribution of haats
according to their distance from
central haat

.....

S.No.	Distance of Haats from Respective Central Haats (Kms.)	Percentage Distribu- tion of Haats
1	2	3
1	0 - 10	53.3
2.	11 - 20	34.6
3.	21 - 30	11.5
Total		100.0

Table No.7.14

Percentage distribution of haats
according to their distance from
the nearest seedlac/shellac factory

S.No.	Distance from seedlac/shellac factory (Kms.)	Percentage of Haats
1	2	3
1.	0 - 10	38.4
2.	11 - 20	26.9
3.	21 - 30	15.4
4.	31 - 40	15.4
5.	41 - 60	3.9
Total		100.0

Table No.7.15

Percentage of Haats auctioned according
to annual auction values

.....

S.No.	Auction Values per term (Rs.)	Percentage Number of Haats
1.	2	3
1.	0 - 500	27.3
2.	500 - 1500	27.3
3.	1500 - 6000	9.1
4.	6000 - 25000	36.4
Total		100.0

Table No.7.16

Percentage Distribution of haats
according to turnover of lac

.....

S.No.	Range of Turnover (M.Tons)	Percentage of Haats
1	2	3
1.	0 - 10	26.9
2.	11 - 40	26.9
3.	41 - 60	23.1
4.	61 - 80	7.7
5.	81 - 100	3.8
6.	100 & above	11.5
Total		100.0

Table No.7.17

Showing the distribution of Paikars
according to profit margin

.....

S.No.	Profit Margin (In Rs./Kg.)	Percentage of Paikars	Percentage of Traders Turnover Distribution according to profit margin
1	2	3	4
1.	0.00 - 0.10	18.2	34.5
2.	0.11 - 0.20	50.0	49.1
3.	0.21 - 0.30	13.64	4.8
4.	0.31 - 0.40	9.09	7.3
5.	0.41 - 0.50	4.54	3.8
6.	0.51 - 0.70	4.54	.5
Total		100.0	100.0

Table No.7.18

Percentages Distribution of Paikars
according to caste

.....

S.No.	Caste/Religion	Percentage
1	2	3
1.	Munda	12.5
2.	Others Tribes	4.16
	Sub-total tribes	<u>16.66</u>
3.	Brahmin	8.33
4.	Banias	62.5
5.	Kayastha	12.5
	Total	100.0

Table No.7.19

Demographic Characteristics of a Trader
Household

....

Average Family Size	=	6.4
Female/Male ratio	=	.779
	=	779/1000
Worker + Housewife/ Non-worker ratio	=	80%
Worker/Non worker ratio (excluding housewives)	=	44.7%
Worker/Total Population	=	24.84%
Worker & Housewife/ Total Population	=	44.4%

Table No.7.20

Worker - Non-worker according to
age and sex among traders
households

(Figures in Percentages)

Age	Worker		Non-Worker		Housewise	Total
	M	F	M	F		
0 - 7	-	-	7.2	7.8	-	15.0
7 - 16	-	-	7.8	8.5	-	16.3
16 - 60	22.8	-	14.4	5.3	19.6	62.1
60 +	1.96	-	1.9	2.6	-	6.5
Total	24.8	-	31.8	24.2	19.6	100.0

Table No.7.21

Percentage distribution of grower
households according to the acquaint-
tance of buyers with the grower
.....

S.No.	Whether Acquainted	Percentage of Households
1	2	3
1.	Yes	10.5
2.	No	89.5
3.	No response	-
Total		100.0

CHAPTER - VIII

SUMMARY AND CONCLUSIONS

Significance of LAC in the Regional Context

Let us briefly recapitulate the main thrust of the study. To begin with, we placed our analysis of the economics of lac in the context of the broader regional economy of the three districts of South Bihar, whose backwardness is reflected in the demographic and occupational structure statistics which we have stringed together. It appears from a broad analysis of the regional data that those few industries which have come up largely remain a kind of outposts which do not make a significant impact on the conditions of the local population. In the implementation of a new development strategy designed to build into the system integrative development impulses, development of lac based activities involving its growers, small traders and petty producers in a prominent way can bring about a breakthrough. This, however, is contingent upon creating a framework in which the potential of lac for local development can be realised.

Lac Economy and Public Policy: Historical Perspective

The first step in the process of understanding the

economics of lac was to review the trends in its production, exports, prices etc. over a longer period, particularly in view of the availability of the reports of many committees on problems of lac. We tried to look at the problems faced by the trade on the basis of data from secondary sources, the diagnosis and prescriptions of various studies and the response of public policy. This review brings out that the policies regarding lac have changed from time to time according to underlying problems (e.g., that of increasing production, standardisation of grades and maintenance of quality, price stabilisation etc.). In general, it emerges that during the 'British Raj' the major thrust of the policies pursued was to ensure a cheap and stable supply for exports. After Independence, it yielded place (notwithstanding some verbal concern for the interest of the lac growers and of workers engaged in lac processing), in effect, to protecting and promoting foreign exchange earnings. Some extension effort for improved techniques of lac production, too, in effect, seem to serve the purpose of export promotion.

The absence of growers' perspective is reflected, apart from in the poor conditions of the growers, (as we show as we go along) in the pursuit of foreign exchange earnings irrespective

of domestic income and employment effects, size of the price spread between sticklac prices and unit value realisation from lac exports, consistent understatement of the rate of recovery of shellac from sticklac and non-availability of data concerning prices received by growers prior to mid-1978. In tracing the development of these policies one observes that they arose from some specific crisis in an ad hoc manner, ignoring the socio-economic and institutional aspects of lac production and marketing. This accounts for mis-directed policies made worse owing to faulty implementation. These policies are considered misdirected in the sense that the welfare of all the interests associated with lac was identified with export performance.

Apart from the divergence between physical and financial performance on the export front, there cannot be any automatic trickle down of the export earnings to the growers, especially in view of what we have shown to be a highly concentrated structure of manufacturing and exports. It is on account of such dichotomous behaviour of the volume and value of exports and high degree of concentration on the trade in the hands of a few that even in the face of slackening and uncertain export demand, the manufacturer-exporters have done little to increase

internal demand for lac products. Thus a historic review of various studies and trends in lac brings out absence of conscious recognition of the interests of the powerful bodies connected with lac processing and exports, poor follow-up and inadequate and faulty understanding of the socio-economic aspects of lac. In fact, the importance of lac for income and employment generation and improving the productive potential of the growers in both the main agricultural and subsidiary forest-based activities (which is dependant on strengthening their position in lac and its forward linkages) is something which must be underlined.

Trends in Production and Exports

Production of lac has witnessed a declining trend over time (See Graph 1). Exports of lac also show a downward trend over a long period of time. The trend is accompanied by extreme seasonal fluctuations. Five yearly average production figures show that lac production has consistently declined from over 35 thousand tons during 1960-61 - 1964-65 to about 22.5 thousand tons during 1971-75. The decline has been fairly consistent since late 1950's. From about 30,000 tons of average annual exports for the ten years ending in 1965-66, exports came down

to about 23,000 tons during the ten years ending in 1965-66 and to about 12,000 tons during the ten years ending in 1975-76.

The decline in production has to be seen in the light of the world offtake of lac in various forms, which also showed a consistent decline owing mainly to autonomous development of synthetic resins by big petro-chemical companies rather than so much owing to unstable supply and wide fluctuations in prices of shellac as is generally believed in lac trade circles.

World lac trade is the duopoly of India and Thailand. During 1958-59 - 1968-69, Thailand has almost trebled the exports of seedlac, while India's volume of shellac exports has decreased to one-fourth of its 1958-59 level. The products exported from these countries are different both in nature and quality, making substitution a difficult proposition in the short-run. The role of the Thai competition to Indian lac in the loss of export markets appears to be generally overstated, because more than 90 per cent of Indian exports are in the form of shellac, whereas more than 90 per cent of Thai exports are in the form of seedlac. Then, there is absence of a clear pattern in the sharing of changes in world demand for lac products between the two countries.

State-wise and District-wise Production

An analysis of statewide production figures reveals that the three states Bihar, Madhya Pradesh and West Bengal maintained their share in total production, though with yearly fluctuations; for example, share of Bihar which was at an average of 54.8 per cent of the all-India production in 1960s fluctuated between 43.4 per cent to 66 per cent of the all-India production during 1970s (See Graphs Nos. 2 and 3). In Bihar, the districts of Ranchi, Palamau and Singhbhum account for about 90 per cent of total lac production. The share of Ranchi and Palamau taken together has been consistently around 40 per cent of the national production. But there have been large fluctuations in production levels in individual districts, e.g. production in Palamau varied between 33,000 tons in 1972-73 to 4,600 tons during 1974-75.

These fluctuations apart from creating uncertainty about the supplementary income from this source, create problems for investment and development of processing facilities in the districts. Hence it is essential to implement measures to stabilize production. Important among such measures are methods of ensuring a fair and stable income from lac to the growers.

This is a measure which would enable them to adopt methods for increasing and protecting lac production. As we shall see, fixation of statutory remunerative price for sticklac and monopoly purchase by the State directly, through co-operatives and through paikars alone can provide fair returns to lac growers.

Need for Detailed Investigation of Home Market for Lac

Declining share of exports in lac production gives rise to suspicion that domestic consumption of lac products is much more than it is commonly believed to be. This calls for a more detailed investigation of the nature of domestic uses of lac. Stable and steady growth of demand mainly based on domestic consumption is also essential. For this purpose agencies have to be set up to take to use of lac for many known purposes.

Crop-wise Production

Baisakhi is the principal lac crop in terms of volume of production followed by Katki crop. But Aghani, during which Kusumi strain is produced, is qualitatively and productivity-wise the best one. Baisakhi crop accounts for something between 64 per cent to 81 per cent of total lac production, while the share of Katki crop is above one-fifth of the total produce. Aghani being the best one of the three, efforts are needed to increase

its relative share so as to meet the competition from synthetic resins and for the growth of internal demand. There is also the need to give weightage to the prices in favour of Aghani*. Statutory prices have to accommodate for such quality differences.

Increased lac production can be obtained without diverting land from other crops and will not only increase the incomes and savings of the growers, but also its secondary and tertiary effects would be beneficial giving the growers greater independence from farming.

Coming to the programmes for increasing and stabilising sticklac production, we find that the extension of the ILRI's researches has been very poor and whatever has been done failed to check the downward trend in production. Most of the growers are not even aware of the developments taking place by way of technical improvements.

Features of Lac Exports

We now turn to some important features of lac exports. While the volume of lac exports and production have come down

*The Report of the Study Team of Commerce Ministry (1978) quotes the view of the Bihar Government that 'the quality of Kusumi lac being superior, support price of Kusumi sticklac should be higher', CP. 8.

substantially, export earnings as well as unit value realisation from exports have gone up except for the last few years. During the decade ending in 1965-66 average annual export earnings amounted to Rs.5.72 crores rising to a level of Rs. 8.96 crores during the decade ending in 1975-76, the corresponding export volume figures being 23,000 tons and about 12,000 tons respectively.

Sticklac prices did not increase adequately to compensate for the fall in production. This led to a comparative decline in the total income derived from lac by the growers. Thus incompatibility between the interests of the growers and a handful of exporters comes out vividly; when exporters fare well by obtaining rising export earnings, physical volume of exports declined reducing the income of lac growers. With the diversification of India's exportable commodities, the importance of lac in India's export basket is no longer what it used to be. Hence primacy in lac policies belongs not to export earnings as such, but to the domestic income and employment impact of lac based activities.

The pattern of exports from India has shown an increasing preference for machine made shellac as compared to

handmade shellac. On the manufacturing side also, there is a shift in production in favour of machine made shellac because of relatively lower cost of production.

Until 1968-69, India has been an importer of sticklac/seedlac from Thailand for processing and re-exporting. The imports were banned during the period 1968-69 - 1972-73. However, since we consider the role of foreign exchange earnings from shellac vis-a-vis the objective of generating income and employment for the lac growers and processors to be secondary, the imports of seedlac cannot be justified, especially in view of high elasticity of domestic supply.

Coming to the direction of export trade, we find that the export earnings from U.S.A., U.K. and West Germany have declined while the East European countries and other developing countries have increased their offtake of Indian lac products. In 1958-59, the U.S.A., U.K. and Federal Republic of Germany together contributed 74 per cent of our export earning from lac. Over the last decade, the proportion is generally around 40 per cent only.

Role of Big Exporters: Concentration of Export trade and Processing:

We now come to the most important factor, that is, the role of exporters of lac products. The top 12 exporters have, on an average, for the years 1972-77, accounted for 88.19 per cent of the total exports. There is a very high degree of vertical integration around the terminal stages and seedlac/shellac marketing as evidenced by the fact that the seven manufacturer-exporters have a share of 80.22 per cent in total exports. Another striking feature is that 3 large firms, namely, Achhruram Kalk^{off} & Co., Angelo Brothers Ltd., and Smar Singh Jaiswal Pvt. Ltd., controlled about three-fifths of the export trade.

The general picture of the market structure does not show much year to year changes. The lac trade is characterised by very strong supplier - foreign buyer link and brand name preference. The combined rated capacity (18,500 metric tons of shellac) of the big three is so high that present export level of 7,000 tons is just about 37.5 per cent of it. One can see that not much scope is left for the small and medium manufacturers in the area of exports.

Problems of Export Promotion:

A large number of export promotion measures have been found to be very costly. Since the highly organised body of big manufacturer traders is quite aware of these measures and yet have not shown any inclination to undertake these measures (high and growing export earnings do not provide, given the high degree of concentration, much incentive to this effect), it will be difficult to assume that voluntary efforts by them in this direction will be forthcoming. Even the alternative of the government undertaking these measures and recovering costs from the beneficiaries is not advisable because of its far reaching adverse consequences for lac trade (on account of disturbing inter-industry tax parity) and inability to benefit the growers from these measures. These measures, when implemented on public account, no doubt, can lead to enhanced foreign exchange earnings. But, in concrete terms, the benefits flow to the small group of manufacturer-exporters and merchant-exporters. There is no mechanism ensuring trickling down of a considerable part of the export earnings down the line upto lac growers.

If the export promotion for imparting viability to lac growers and increasing income and employment from lac based

activities in the lac growing regions are the objectives, the concentration of shellac manufacturing and export in a few private hands cannot but be considered harmful. Policies will have to be designed and implemented to bring about such a structural ownership reorganisation that the conflict between the interests of exporter-manufacturers and primary lac growers is eliminated.

Socio-Economic Profile of Growers

Designing policies subserving the interest of the growers requires an understanding of the socio-economic profiles of the lac growers. Since, there are a large number of forward linkages in processing and eventual export of lac, it gives a good opportunity to increase employment for the rural poor of the lac region. For a successful implementation of programmes directed at improving the condition of lac growers, it is essential that not only their socio-economic characteristics and behaviour patterns but the network of their social production relations are clearly perceived.

We find that lac cultivation is no longer an exclusive tribal activity and other sections of society settled in and around forests in the lac region find it to be a good subsidiary

cash crop. The growers population in the three sample districts is characterised by large family size (7.5), low standard of living, high dependence on land as a major source of income (83.3 per cent of survey households are depending purely on land as a major source of income), not very high expectation of life at birth (only about 2 per cent of the population belong to the above 60 age-group), low educational and formal skills level (overall literacy rate is 24.2 per cent and about 15 per cent had middle level education). The lac growing households have a high incidence of underemployment and unemployment (Percentage of population in the working age-group was 60 per cent whereas the reported number of workers were about 40 per cent of the population), which emphasizes the need to increase lac production and locating lac processing and lac utilizing industrial units in the lac region. In contrast to the high degree of vertical integration of lac based activities observable at the present, there is a need for bringing about greater vertical integration of lac-based activities at the growers' end.

There is enough evidence to believe that lac growers are among the poorest of the rural population, their average monthly per capita income level being Rs.22 per month at current

prices (NSS data show that the consumption of the lowest three deciles of population in Bihar ranged between Rs.5.91 and Rs.9.55 per head in 1970-71 at 1960-61 prices). The growers have, by and large, a mono-crop culture (81.3 per cent of the sample households grow only one crop a year and only one variety as well) which indicates the poverty, vulnerability and backwardness of the growers. It was not found to be possible to get much information on indebtedness through canvassing a questionnaire. In view of the preceding information, an average rate of sale of 41.58 Kgs. of sticklac per household becomes very significant. If the support price of Rs.3/- per Kg. actually prevailed, it would increase the per head consumption for the lac growers in this region by about Rs.1.50 per month.

The economy of the lac growers is a kind of under-developed commodity economy. However, the picture of participation in the commodity market is different. Some 53.7 per cent households reported sale of minor forest produce. Cereals were brought to the market by 15.7 per cent households only. This further highlights the important role that MFPS play in augmenting the income of rural households in this region. To some extent or other, almost the entire sample was involved

in lac growing. This wide, non-specialised base of lac growing is - from the point of view of regulation and development of the activities centering round lac - a significant feature. For example, it brings out the difficulties of organising co-operatives based exclusively on production, marketing and even processing of lac.

Ber is the most widely used tree for lac cultivation. 85.6 per cent of the grower households use ber as host tree, whereas Palas was used by 62.9 per cent of households. Kusum, which is the producer of best quality lac was reported to be used by only 12.0 per cent of the sample households. Use of more than one type of host tree by grower household is a very common feature of lac cultivation. Most of the cultivators scrap the lac prematurely (Ari lac), depending upon their immediate economic needs. The labour input in lac growing involves considerable time spent on guarding the crop.

Marketing of Lac

Primary haats followed by central haats are the principal marketing places for lac. About 80 per cent of the grower households reported their preference for selling in haats. No sample household reported selling of sticklac at

factories. There is not much sale of lac at the village (only 6.5 per cent of the grower households reported doing it), or, as is often put, at the hut level. The importance of haat shows that the sale of lac is related to the purchases made by the growers from time to time. The average distance of haats from villages was found to be 4.33 miles. It was found that the buyer-seller relationship is impersonal - about 90 per cent of the reporting grower households expressed lack of personal acquaintance with the buyers of sticklac. The most important buyers (from the growers) are the paikars. More than 91 per cent grower households reported the sale being made to them.

The top 40 per cent of the households account for a much larger share of the total than the bottom 60 per cent. The average quantity, sold by the sample growers households came to about 41.58 kgs. However, given the highly non-specialised and scattered nature of lac production, there are relatively few big growers of lac - only about 6 per cent of the households sold more than 100 kgs. of lac in a year. Even the largest quantity of sales reported was, after all, 180 kgs. per annum only.

Our survey data show that the average market charge is about Rs. 0.47 per head load per market day. If we take the price spread between average export price of shellac and the sticklac price as an index of growers share in lac price, it follows that the real marketing cost is on the higher side.

A very small proportion of the growers have advance knowledge of the prices. Their main source of knowledge are paikars (in about 60 per cent of the cases). In only about 5 per cent of the cases, growers reported that they came to know the price through the market in an impersonal manner. It was also reported that majority of the traders quote different prices. This shows the imperfect nature of the haat as a selling place. Manufacturers and exporters have fairly reliable advance knowledge of crop prospects through their field staff and agents etc. On the other hand, the growers have little knowledge of the expected crop in their entire region and the likely price level. For a big proportion of growers, their price expectation is never realised.

It appears that, though money intervenes temporarily, the real position of these markets is not much different from that of barter. The mixing up of produce and consumer goods

markets works towards weakening the bargaining power of the growers. Seperation of primary produce markets from haats and bringing them under the purview of Regulated Markets Act may help improve matters. Buffer stock operations should start at the beginning of the crop season, because in the early days of a season there is a high arrival rate in the haats. Scientific production of lac, ensuring adequate returns, lac processing by the local under-employed population and setting up of small scale industries based on lac and other MFPs should form an overall, integrated strategy of boosting the economy of the region.

However, the dominance of the entire range of activities connected with lac by a handful of modern corporate entities engaged in lac processing and exports results in a situation in which the surplus generated in these activities gets concentrated at the apex. Given the declining world demand, there is not much scope for ploughing back these surpluses in lac based activities. Therefore, there is stagnation in lac production and in some quarters a fear is expressed that it may also meet the fate of indigo. In order to avert such a crisis which would deal a severe blow to the growers, workers of lac units and its traders,

it is essential that the dominance-dependence relationship between lac exporters and the rest of the interests in lac, particularly the growers, is broken. This demands a fair share of the unit value realised from lac for the growers.

Analysis of Price Spreads:

An analysis of the trends in price spread, marketing and pricing helps in understanding how the growers have received a small share, determined largely by the power of the big manufacturer-exporters.

The analysis of relative prices of seedlac, sticklac and shellac defining the price spreads has so far been handicapped because no all-India average price of sticklac was available. Therefore, we constructed a time series of such prices for sticklac for the period 1969-78 on the basis of price and arrival data of the Directorate of Lac Development ((See graph 4). We find that sticklac prices are not only unstable from year to year but within a year also there are fairly wide seasonal fluctuations (See graph 5). For example, in 1969 the price was ^{Rs.}141.9 and in 1974 it was ^{Rs.}1808, the weighted average price for the period being Rs.583. Coming to seasonal fluctuation, we find that the second quarter generally records

the lowest price (Baisakhi) while the last quarter records the highest price (Kusumi). Seedlac and shellac prices also show the same features as sticklac prices (See graph 6) viz., large year to year fluctuations generally rising trend upto 1974 and declining trends after 1975, with low prices generally during the Baisakhi crop (See graph 6). The spread between sticklac and seedlac prices have varied a great deal since 1969 from the low of Rs.48.80 per quintal in 1969 to Rs.505 per quintal in 1974 (See graph 7). From the analysis it follows that when seedlac prices started rising from 1972 onwards, the sticklac growers could not obtain a fair share of the prices.

The price spread between seedlac and shilac prices shows lesser variation than between sticklac prices and shellac prices (See graph 8 for the former and graph 9 for the latter). During the period 1971-78, the price difference has been a low of Rs.100 per quintal in 1971, while it reached the highest of Rs.2275 in 1973. The price differentials show that the cottage sector seedlac units too are in a position somewhat similar to lac growers in as much as the price spread between seedlac and shellac moves largely to the advantage of exporters. When shellac prices rose substantially the seedlac prices did not

show adequate rise to keep pace with them, resulting in a large price spread. In 1972, the price spread between seedlac and shellac prices was Rs.182.58 and the seedlac reached Rs.2313.13 the price spread also increased to Rs.255.95. It shows the strong hold of the exporters on the lac market.

In working out the prices which the lac trade is in a position to pay to the growers of sticklac, one finds that generally, it is the Calcutta shellac prices which are worked backwards. Since what the exporters obtain is reflected by the unit value realised and owing to fairly big gap between Calcutta shellac prices and international unit value realisation, it is the latter which provides a reasonable basis for comparison with sticklac prices. Hence in computing sticklac prices, the unit value realisation from exports should be worked backwards.

Average annual sticklac prices and Calcutta shellac prices also show large and fluctuating price spread. The minimum and maximum of the price spread obtained in 1969 (Rs.118.6) and 1974 (Rs.760.9) respectively. If processing costs were of decisive importance in the size of price spread, one would not have been such volatile behaviour of price-spread over a period of a decade during which no evidence of any significant change

in the lac technology or changes in factor prices was found.

During periods of high and rising prices, the sticklac growers have fared better than they did during periods of low and falling prices. It implies that when the going is not good in lac trade, the brunt is borne by the sticklac growers - the weakest link in the chain. The fact that the prices of sticklac, seedlac and shellac move in the same direction, though with different magnitudes, shows that while the economic and market forces make their move in concert, there are many factors, like the dominance of the organised big exporters - manufacturers which affect the actual size of the difference between these inter-related prices.

Contd/....

Infrastructural Facilities:

Weekly primary haats serve as the most important sales points for the growers of lac. Each haat on the average serves about 15 villages. About 80 percent of the growers sell their sticklac in primary haats and the haats are, on the average, at 4.33 miles away from the villages. On the whole, the nearness of the haats to Pucca roads and railroads indicate that the physical and infrastructural bottlenecks cannot be considered significant. Only parts of Palamau district lag behind in these facilities. Our analysis of price-spreads indicated the relatively disadvantageous position of large number of small lac growers with regard to the benefits from the infrastructural facilities continues to remain unchanged.

Role of Haats:

The role of haats is multifarious. Apart from their role in social activities, they serve as centres of major economic transactions of the feeder villages with each other as well as with the rest of the region. The haats serve as markets for final consumer goods, intermediate products and capital goods. Lac transactions constitute only a small fraction of the total turn-

over of haats. The growers sell many MFPs, besides lac, and buy consumer goods. Owing to the mixing up of produce market and consumer goods market and the distance covered by the growers to reach haats, the growers have very low retention prices. An important feature of the haats is that the characteristics of primitive marketing, viz., personal bond or nexus between buyers and sellers and absence of money as a medium of exchange, are not present in the weekly haats of the three districts.

About 90 percent of the lac is sold by the growers to the paikars who in turn sell the lac to arhatias, bhattawalas, factory agents etc. from whom they have some specific order or have some understanding with them. The fact that most of the paikars belong to the middle strata of the society and are better educated than the growers is an indication of the paucity of employment opportunities for the relatively better educated middle classes. Our evidence show that possibly on account of the competition among a large number of paikars, their profit margins are modest - about 15 paise per kilogram of lac.

Important Features of Pricing Process of Lac:

- (i) A large number of growers, with low reserve price, bring small quantities of their uncertain and fluctuating production

which depends mainly on their need for cash in order to buy consumer goods;

(ii) Paikars are the most important buyers of lac. They are a group of people with modest means and have a small turn-over.

Apart from them, arhatias, factory agents etc. also play a subsidiary role in buying lac:

(iii) Since the paikars buy lac either directly or indirectly on account of the Kothiwalas and big manufacturers (who buy most of the produce), the level of their purchases and the prices offered by them are greatly influenced by what they are able to sell off to these relatively fewer numbers and the prices they are able to obtain from them.

Price Fixation:

In our field visits we found little evidence of market arrivals having much impact on lac prices. Hence, only in a few cases growers' price expectations are realised. We can conclude that sticklac prices are generally greatly influenced by the powerful concentrated demand factor represented by the highly concentrated manufacturing and export sector of shellac. Even among the manufacturers, the manufacturer-exporters are relatively better off since the average international prices of shellac are always higher

than Calcutta prices. The strength of the manufacturers and exporters in the entire spectrum of lac trade results in a pattern of price spreads which is beneficial to them.

Government Policy:

The only success of government policies was in preventing a fall in per unit export earnings. It failed to impart price stability, could not ensure remunerative prices to growers and also did not succeed in keeping the price spread between international shellac and up-country sticklac prices within a reasonable level favourable to the growers. Even the success in preventing a fall in per unit export earnings did not lead to helpful income and employment effects in the home economy, nor did it help increase our total export earnings.

Ban on Fatka :

Inspite of the ban on fatka during 1954, as recommended by V.Jha Committee, prices of lac products continued to fluctuate. Hence it is obvious that the ban on forward contracts by itself could not bring about stability in lac prices.

Minimum Export Price (MEP):

The policy of fixing MEP succeeded partially in providing a floor below which world prices could not fall. When the downward trend in world prices persisted, the MEP had to be lowered a number of times and finally withdrawn. In so far as the MEP helped in keeping shellac prices high without ensuring a trickling down of its benefits to the sticklac growers, it led to a wider price-spread. Despite supplementing the policy with that of partial canalisation, MEP could not prevent the market forces from bringing down sticklac prices.

Canalisation:

Because of pressure from big manufacturers and S.T.C.'s lack of expertise in handling lac exports, the canalisation order has been successively diluted ; main changes being: (i) reduction and abolition of MEP; (ii) removal of quantitative restrictions on exports by private trade; (iii) reduction in percentage of obligatory lifting of stocks of seedlac from S.T.C.; (iv) changes in the S.T.C.'s service charges from private exporters, and (v) re-introduction of MEP in order to restrain inter se competition amongst private exporters. The structure of lac market which is

dominated by a few big ones, with monopolistic traits like product differentiation, strong buyer preference etc.; are partially responsible for STC's failure. The top exporters have, more or less, had a consistent expansion of their exports during the whole period of canalisation.

Price Support and Buffer Stock Policy and Factors responsible for their limited impact:

The bufferstock operations were started too late after a fairly good part of the crop moved away from the hands of the growers. This happened not only in the first year, but even in subsequent year. The level at which the buffer stocks were to be maintained, the principles for determining such a level and the quotas of various States and their procurement were not fixed.

The choice of form in which the buffer stocks were maintained (i.e. seedlac) was not the best one, thus increasing costs considerably. Concentration of exports in the hands of a few firms also created some problems in the implementation of buffer stocking and price support policies. The exporters recycled STC's seedlac to it and processed low-prices open market seedlac and sticklac for their exports purposes and made higher profits. Thus the growers were denied the benefits of the support price. Even the support

price was reduced later when market forces favoured a higher price. Thus, in effect, the support price during 1978 became a sort of floor price.

Thus the administrative organisational limitations of buffer stock - support price - canalisation policies apart, it is the structure of the trade' (dominated by a few business houses who work partly through the operation of administrative mechanisms and mainly through the use of market forces) which is largely responsible for the failure of the government policies.

Because only a small fraction of the total sticklac output was brought under the price support scheme, the market price remained unaffected by it. On the contrary, it became a means for some people to pocket the difference between the support price and the market price. The support price scheme could not effectively reach the growers. The chain of intermediaries was not reduced but the State agencies were added on to the existing channels. The State agencies did not work on a no-profit-no-loss basis, but made tidy profits through buffer stock operations. In brief, the entire range of public policy interventions in the lac economy have produced very little of the stated objectives.

CHAPTER - IX

R E C O M M E N D A T I O N S

The foregoing recapitulation of the main results of our study puts us in a position to make our recommendations for strengthening the lac economy and making it serve the national objectives of using natural resources like lac for fostering development, particularly of the weaker sections, which undoubtedly, in the present case, happen to be the lac growers.

It may be mentioned at the outset that all the recommendations are inter-related and stand as a package. The rationale of these steps follows from the preceding analysis.

Increasing the direct income from sticklac for the growers is possible either through increasing production or ensuring a good, reasonable price, or both. In the short-run, increasing production will come up against demand constraints. Given the present level of prices, it may not be sufficiently attractive for the growers to go in for adopting various methods of giving high and stable yields. Hence the immediate emphasis has to be on ensuring stable, reasonable and qualitatively differentiated statutory price (for example, higher for Kusumi) of sticklac to the growers.

Since neither uncontrolled market mechanism, nor partially controlled markets (with schemes like the present buffer stock and support price scheme), have ensured stable and reasonable price to the growers, monopoly procurement by government agencies is the only way out. In the past, the intermediaries, which, in effect, meant paikars, were blamed for low receipts by growers. We have seen this to be incorrect. It is the dominance of the entire lac-based economic activities by a handful of shellac manufacturer-exporters which leads to low returns for the growers, apart from the influence of fluctuating demand and supply relationship.

Hence monopoly procurement of the entire market arrivals of sticklac/^{both} directly by public agencies and cooperatives^{and} through registered paikars on commission basis is what we recommend. Just as the paikars are to be registered, the growers must also be registered and issued pass books in which there should be entries of their sales, prices paid, number of host trees, inputs like broodlac and pesticides bought/supplies, loans given etc.

Though presently existing haats may be continued as sales points, at specific declared places buying centres should

be opened where the growers may conveniently bring their supplies for sale to the public agency.

If such a system encourages the growers to bring in their supplies to the market in bigger lots, methods of encouraging them to put in the money in bank accounts may be tried. In fact, the banks may give some commission to the paikars for inducing growers to make bank deposits.

Monopoly procurement at statutorily fixed prices may be done by a LAC AUTHORITY OF INDIA (LAI) as an autonomous body on the lines of a public corporation. It should, among others, have two Division, viz., an internal purchase, sales and domestic industrial uses Division (apart from organising monopoly procurements and domestic sales, it should undertake setting up and sponsoring lac-using industries in the country). Second an External Sales Division with adequate external sales-cum-service centres.

The LAI should be a joint body of the central government and the lac-growing states. All the big shellac manufacturing factories, should be brought under its direct control and management. Without direct ownership over shellac manufacturing and exports neither monopoly procurement at reasonable prices,

nor an appropriate alignment between export realisations and price paid to sticklac growers is possible. Small scale shellac manufacturing in private hands may be allowed but increasingly the cooperatives of growers and paikars should be encouraged. Efforts of BISCOLAMF in this direction should be encouraged and assisted.

There are several reasons necessitating the take-over of all large and mechanized private shellac manufacturing units (except those in the co-operative sector). Smaller units should be allowed only seedlac and hand made shellac manufacturing with a ceiling on total amount produced by inter-related firms. We have in the course of various chapters referred to these reasons. Briefly recapitulated, they are as follows:-

(a) Their export behaviour has concentrated on value or financial aspects at the cost of physical volume of exports, which reduces the demand for sticklac. This has led to increase in the income of the exporters at the cost of loss of income and employment for the lac growers.

(b) The analysis of price spreads between unit value realisation from shellac and sticklac prices has shown that the gap is unjustifiably wide and fluctuating. Moreover, when

shellac prices decline, the reduction is passed on disproportionately to the growers, who do not share in the same measure the increased value realisation from exports.

(c) The study of the marketing system of lac in the haats showed that sticklac prices are largely determined by the advice received by aarhatias and bigger paikars from the manufacture-exporters.

(d) Our analysis of the price spread between shellac and seedlac showed that even the small seedlac manufacturers are in a weak position vis-a-vis the highly concentrated power in the hands of big shellac manufacturer-exporters.

(e) The schemes of buffer stocks and support price did not succeed, among other reasons, because the part of the supply of sticklac not bought by public agencies could find ready and willing buyers in shellac manufacturers at lower prices than those fixed by government. Thus, there were many complaints that the quantities of seedlac lifted by the exporters from the STC's buffer stock were recycled. Hence the scheme not only failed in ensuring good returns to the growers but the amounts paid by the government found way into the hands of

unintended groups. The behaviour pattern of the big shellac manufacturing units had an important role to play in this process.

(f) The working conditions in the mechanical shellac manufacturing units are far from satisfactory. A large number of workers are shown as temporary and the factories are classified as seasonal, while in fact, they operate for a fairly good part of the year. In this way, many legal obligations with respect to the workers are evaded. Our visits to some factories left us in no doubt on this score.

(g) The price payable to the sticklac growers is generally worked backwards on the basis of export prices. However, generally, this is done on the basis of calcutta shellac prices rather than unit value realisation from exports. It is true that the responsibility for the choice of an in-appropriate price cannot be wholly on shellac manufacturers, but in any case, they have derived benefit from the practice.

More serious, however, is the issue of the rate of conversion of sticklac into shellac which has generally been used in cost calculations, obviously on the basis of data reported by the shellac manufacturers. As we have seen, the reported rate

has generally varied between 42 percent to 50 percent. We have shown how this rate contradicts for a very good period the statistics about the volume of market arrivals of sticklac. The rate which can make shellac export figures consistent, in terms of comparison of sticklac equivalent of exports, with market arrivals of sticklac is in excess of 60 percent. Hence the cost of shellac has all along been overstated, giving the manufacturers an undue advantage. This kind of a fact brings out the serious handicaps to which public control and regulations of the lac is subject. Public ownership removes such handicaps.

(h) The failures of partial canalisation of shellac exports and its step-by-step watering down, we have seen, was, inter alia, based on strong buyer-seller link-up in the shellac markets, brand name preference of the buyers and technicalities involved in organising shellac exports. Complete canalisation with production remaining in private sector would create many ticklish problems of price fixation and planning of the structure of output in terms of grades and subgrades in keeping with the pattern of world demand. We have already discussed why and how export promotion measures can be taken up only by government and without

taking-over those units, such costly measures will lead to inequitous enrichment of a handful of exporters-manufacturers.

A take-over will transfer production and sales technology and competence along with ownership of brand names to public sector, which can use it judiciously for export production along with desirable domestic income and employment effects.

(i) We have seen that shellac manufacturer-exporters did precious little by way of ploughing back of profits (with shrinking physical volume of exports, additional investment in shellac capacity cannot be sustained), R & D and development of internal demand for lac. It is some people in BISCOLAMF who are, e.g., struggling hard to propagate lac-coating of urea. The dynamic entrepreneurial make-up or a socially conscious attitude towards growers is hardly in evidence among the big shellac manufacturer-exporters.

No policy of using lac as a means of helping growers obtain a sizeable supplementary income, as a means to help the process of industrial growth in the region through the forward-linkages of lac and to enable the country to maintain its comparative advantage in lac exports on a long term basis,

especially in the face of the competition of synthetics under the aggressive auspices of multinational giants, etc. can succeed with lac industry's dominance by a handful of merchant-manu-^{facturers} continuing. As we have argued in the Introduction, the achilles' heel of lac economy is the dependence-dominance relationship between the lac growers and a small number of merchant-manufacturers. Bringing the organised, mechanical segment of shellac industry (which is engaged in exports)^{too} under a socially-responsive public sector is the only way out for the long-standing problems of lac industry.

Monopoly procurement at statutorily fixed, remunerative and grade-wise differentiated prices of sticklac is necessary for protecting growers. Complete canalisation of exports of shellac is necessary in order to remove the demonstrated anomaly of profit (private financial, flow) maximising private exporters' behaviour which not only does not lead to increasing the physical volume of sales but in fact leads to its continued depressing of growers' income and employment. This contraction of demand for sticklac gives the exporters added advantage in pricing against the interests of the growers. Thus, the growers' income and employment suffer both because of reduction in sticklac output

and widening of the price spread between shellac and sticklac against the interests of the latter.

Given the need for monopoly procurement of sticklac and monopoly exports of shellac by the State, the position of private sector shellac manufacturing becomes untenable and unworkable. Allowing these units under private ownership only allows an unnecessary complicating factor making coordinated planning and implementation difficult and cumbersome. Moreover, take-over of these units with compensation should not affect the private shellac manufacturers adversely because they can move into new industries and trades of which there is no dearth in our expanding economy.

The promotional and structural change introducing roles should be assigned to a specific Division of the LAI. Indian LAC Research Institute should be brought under its control and research and extension work should be closely inter-connected. Such a unified policy will render the secretariat of the Shellac Export Promotion Council redundant as a separate agency and its personnel and services should be merged with the External Sales Division of the LAI.

The LAI should have a Division looking after shellac manufacturing units taken-over for the purpose. The central and state governments should provide it with adequate capital. For operational efficiency, each unit may have separate management under the overall control of LAI. It should be empowered to obtain funds from public financial institutions for its current and investment needs. Growers should be represented on the Board of LAI. The departments of the central and State governments dealing with tribal welfare should also be associated with the management of LAI.

The LAI cannot hope to dispose of all the sticklac which it might procure in the form of seedlac and/or shellac in the domestic and the international markets in the view of the reduction in world off-take of shellac and limited home market. ^{However,} lately, with recurrent international oil price hikes, the prospects of shellac in the world markets vis-a-vis synthetic resins seem to be improving. However, as seen earlier, sticklac production is subject to fluctuations and hence there are likely to be some periods of shortfall in production. Even with administratively fixed prices and monopoly State procurement, buffer stocks are needed in order to tide over supply constraints by carrying

stocks over time. An assured and stable supply through buffer stocks is not only an important condition in maintaining the strength of Indian Shellac in the World markets but is a self-justifying proposition giving the primary growers stakes in increasing or, at least, maintaining production.

At this stage, two specific recommendations can be made about the buffer stock operations in the light of the past experience.

Maintaining buffer stocks in the form of a semi-finished product like seedlac does not seem to be justified either on technical or on economic grounds. The gestation period of converting sticklac into seedlac is not long enough to justify keeping the material in a readily usable form. The cost of warehousing for sticklac, because it could be and ought to be decentralised, would be lower. The shelf-life of sticklac is, we can say on the basis of advice we received, if anything, longer than that of seedlac. Then, it does not require air-conditioned warehouses.. In order to have a long shelf-life, what sticklac stocks need are periodic paltai operations which, apart from generating employment, will not be very costly in view of relatively low wage rates in the interior, rural areas

than in Calcutta and/or other big centres. Hence we recommend decentralised warehousing of buffer stocks ^{/in the lac growing areas} in the form of sticklac.

The buffer stocks and major reliance on external markets are not adequate. The increased and direct public control over the lac industry would be justified if it becomes an instrument for taking some long-term measures to end the dependence of the fortunes of lac-based activities on external markets and at the same time contributes to the development of the economy, more specifically of the regional economy and its weaker sections who grow sticklac. This requires that a large number of already known uses of lac are given actual industrial application either by LAI directly setting up such industrial units or encouraging their development in the cooperatives or in the private sector. It has to find out the areas in which synthetic resins, especially those based on high cost imported petroleum products, are used and push for their substitution by lac/or mixtures of lac with synthetics. There are a large number of areas in electronics and electrical field (as insulating material), in paints and varnishes, in railway wagons painting, in fertilisers, in furniture polishing, as coating and capsule

material, in pharmaceuticals, etc. where definite government policy of encouraging an indigenous, low-cost, high-technical efficiency product with high social benefit coefficient as lac (in the area of store purchase in government and public sector, in industrial licensing and credit policies, in differential fiscal policies and import policies) would be needed.

Improvements in methods of producing shellac by hand can be an area of enquiry for developing appropriate technologies, which can especially be directed towards supplying domestic markets. Such small scale units in the rural area of South Bihar can help the poor growers to move into processing activities based on their own primary produce. It is a low cost method of setting up rural industries.

The question of procurement price has been fairly controversial. We have seen that a price of Rs. three per kg. on fifty per cent lac-content (chauri-parta) basis which was recommended and applied for some time as an interim measure, to be subsequently raised, was, in fact, reduced to Rs.2.25 per kg. last year. On the basis of what we were told about the actual cost (including that of unpaid family labour) and the price spreads, it was wrong to reduce the support price to Rs.2.25.

In an integrated package of policies we have suggested a price below Rs. 3.00 per kg. which was considered barely adequate by a high power committee cannot be justified. To begin with LAI should offer a price of Rs.3.00 per kg. (with a somewhat higher price for Kusumi) and gradually base it on the unit value realisation from exports. The price of Rs.3.00 per kg. should be the floor level which should be raised on the basis of unit value realisation (UVR) in the preceding year.

It is clear that LAI and cooperatives of lac growers (with assistance from LAI and public financial institutions) should make additional warehousing facilities available at many haat centres.

If the registered paikars and cooperatives are found inadequate as purchasing agents in the beginning and before the LAI is in a position to open its own purchase centres, it may be necessary as an interim measure to continue the involvement of the present state governments' agencies in buying lac from growers.

In such cases direct purchases by the concerned agencies should be insisted upon. These agencies should be operating on the basis of actual coverage of cost of purchase and we see no

reasons for allowing them to make a profit by undertaking this activity. It simply pushes up the cost of sticklac while its revenue contribution to overall State government resources is negligible. Furthermore, with LAI as ^apublic sector unit paying it, its net resource raising contribution simply cancels out.

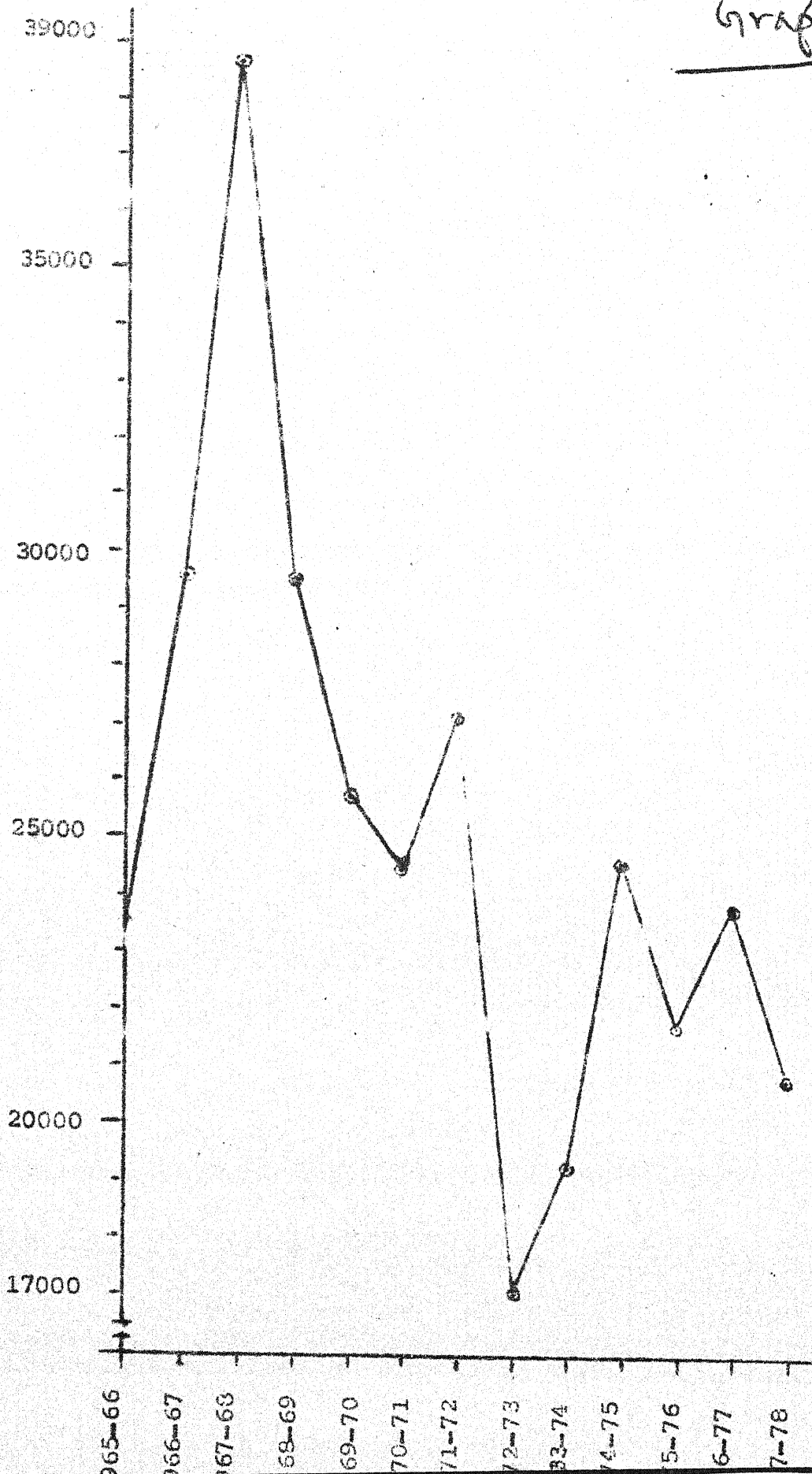
Better forecast of likely sticklac output can help the LAI to plan its exports and domestic use policy better. In course of time, there should be a census of the lac host trees, with appropriate entries in the Pass Books of the growers. The growers, paikars and personnel at the purchase centres should be used for crop-intelligence. A watch on weather conditions and other factors influencing yield should also be undertaken. The ILRI under the LAI should be both a research and extension agency with more intimate links with growers. Bringing it under LAI could bridge the gap between the laboratory and the lac factory.

There is need to urgently bring to an end the present ad hoc and multiplicity of agencies' and departments' centred methods of taking care of the problems of lac industry. This will pave the way for introducing our policy-package in an expeditious manner and, given political will, in an efficient manner.

PRODUCTION OF STICKONC IN INDIA

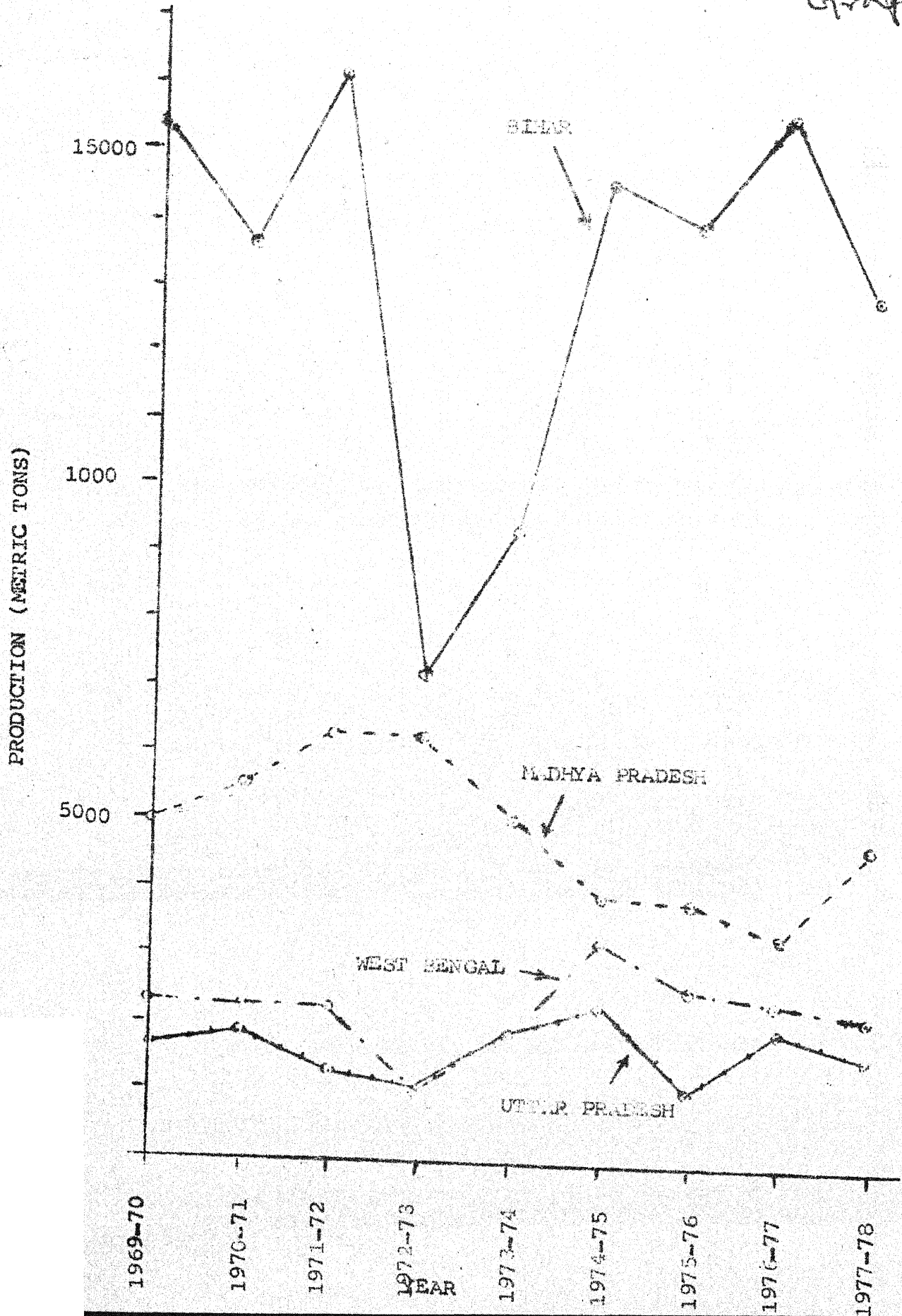
Graph I

PRODUCTION IN (METRIC TONS)



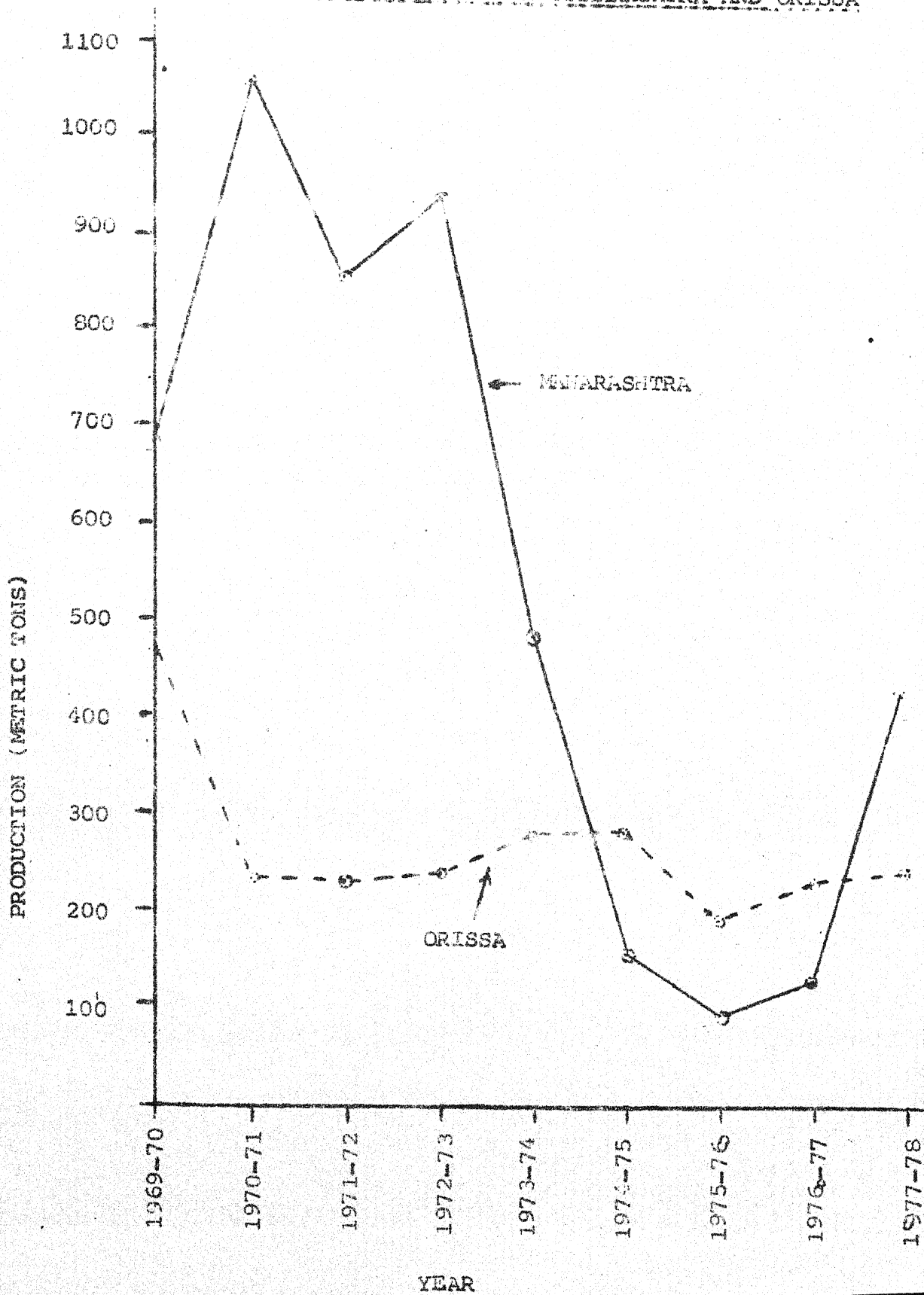
PRODUCTION OF STEEL IN INDIA, MADHYA PRADESH
WEST BENGAL AND UTTAR PRADESH

Graph II

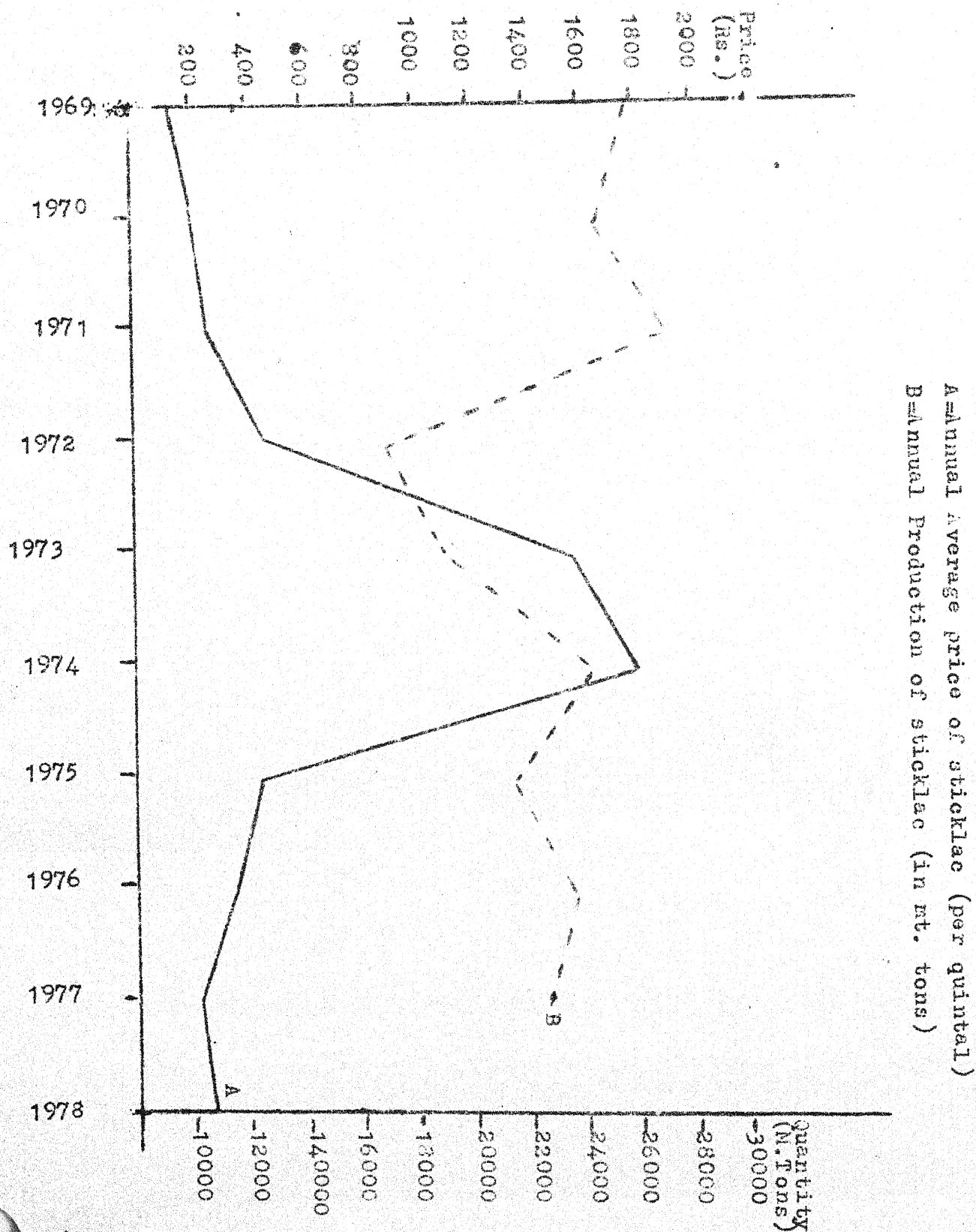


Graph IV

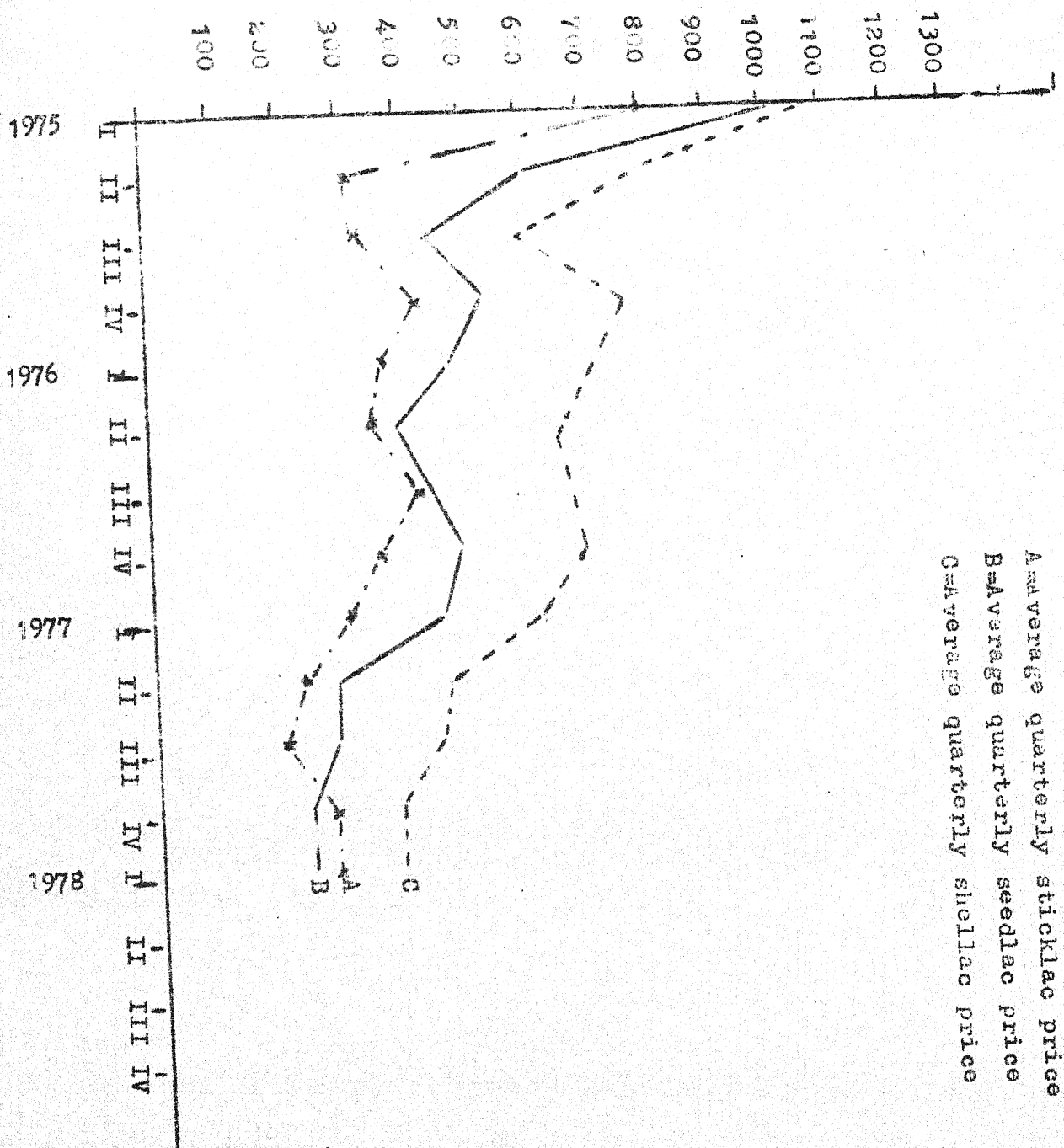
PRODUCTION OF STICK LAC IN MAHARASHTRA AND ORISSA



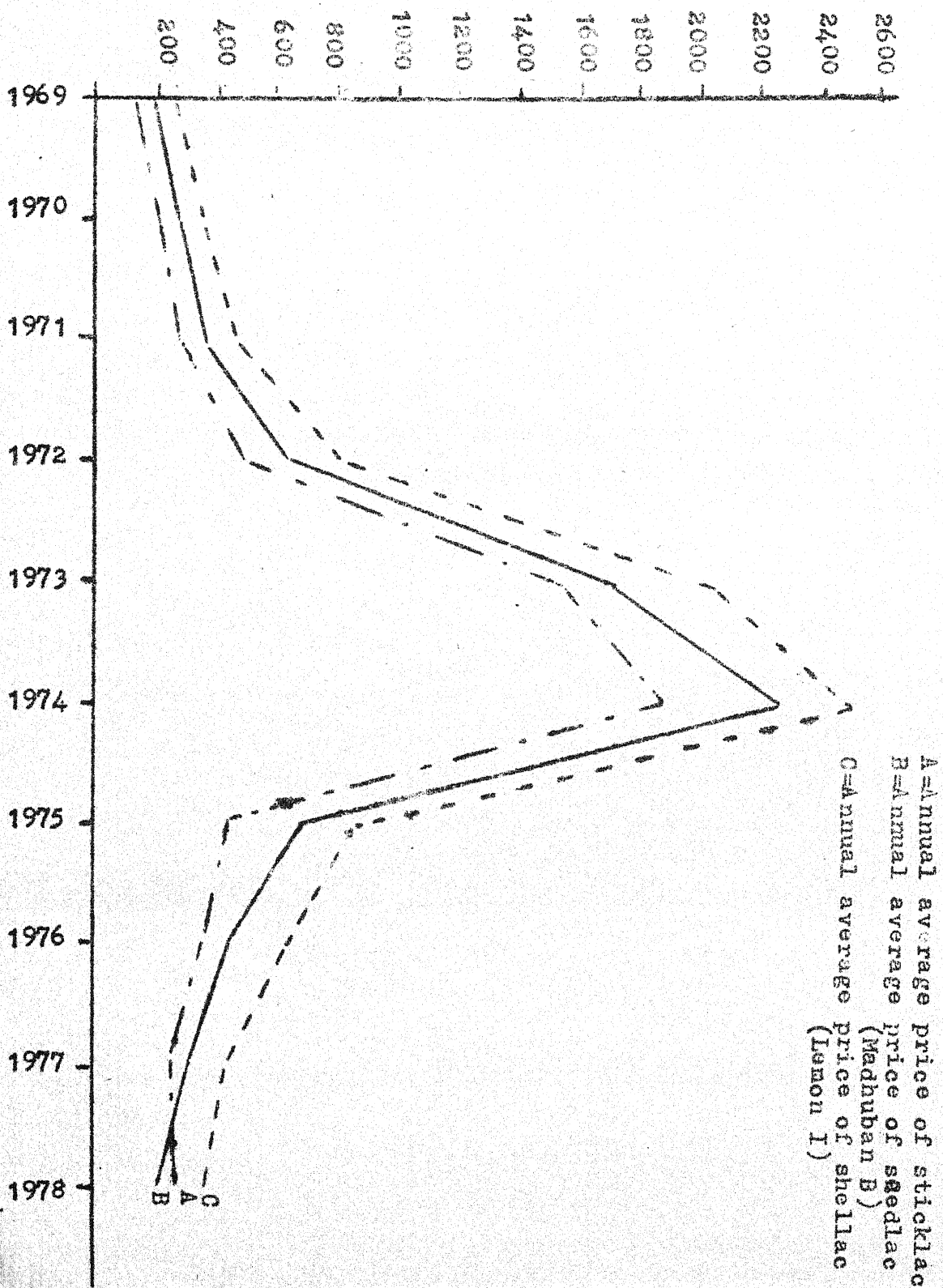
Graph 4



Graph 5.

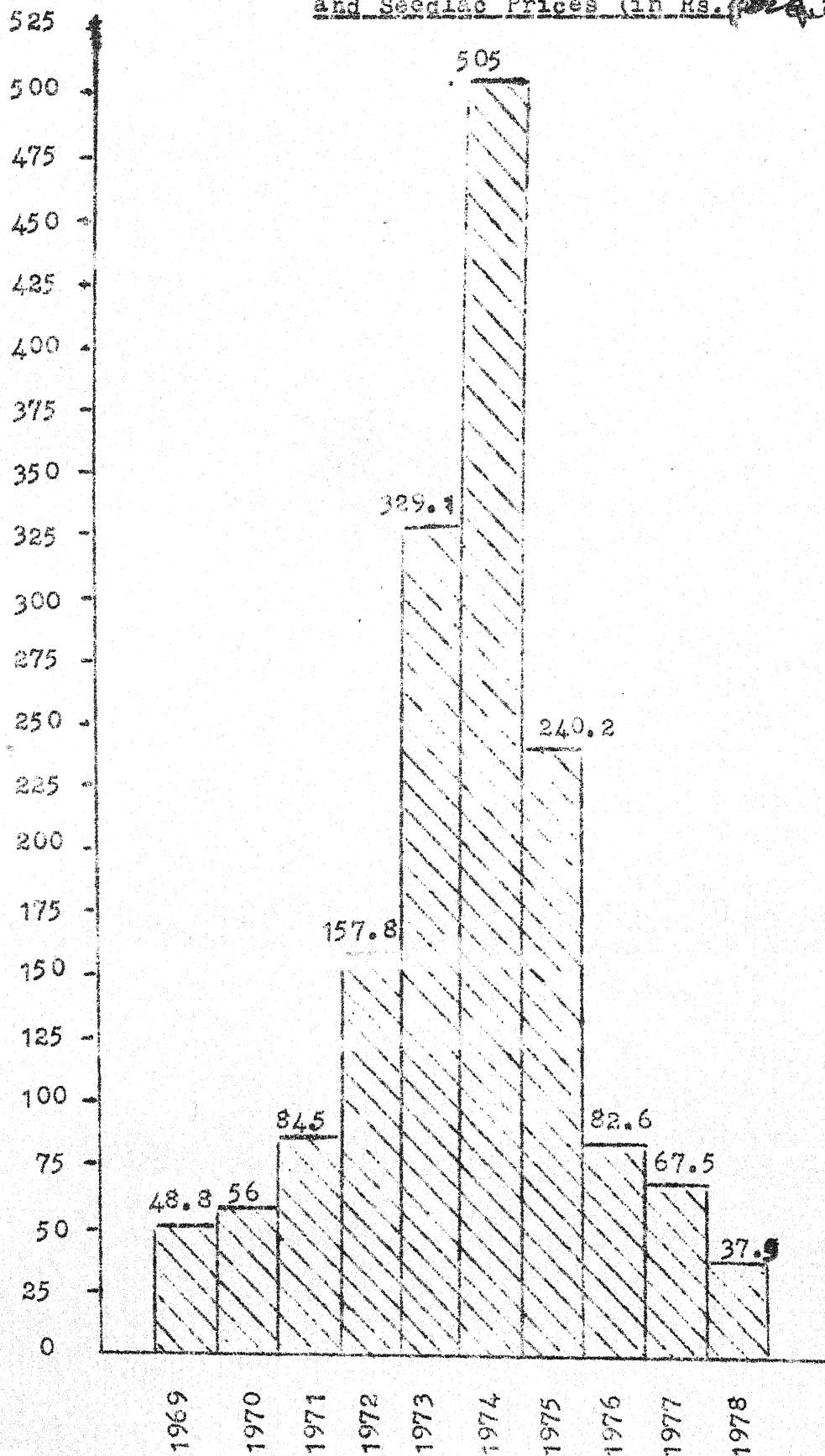


GRAPH 6



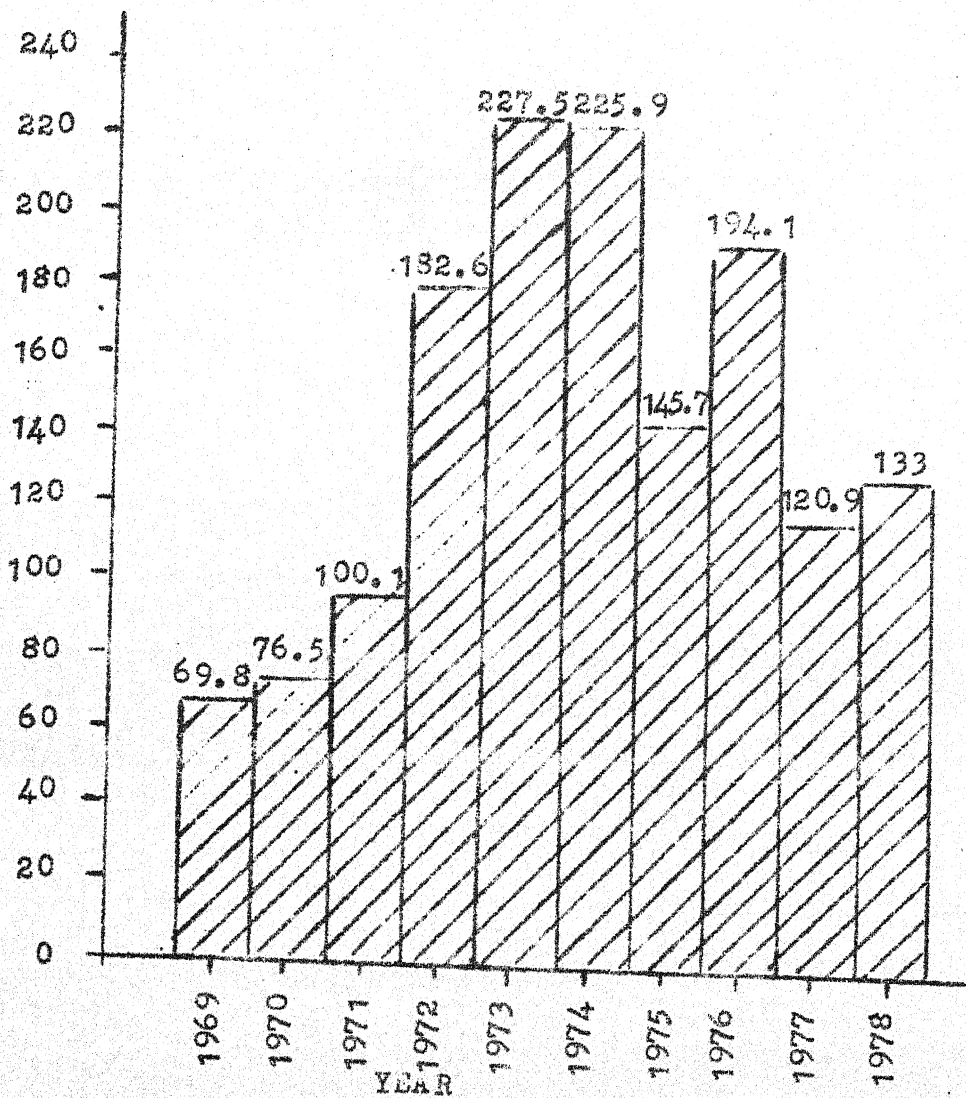
GRAPH 7

Differences Between The Annual Average Sticklac and Seedlac Prices (in Rs. per quintal)



Graph 8

Difference Between the Annual Average Seedlac
and Shellac prices (in Rs. per Quintal)



Difference Between Annual Average Sticklac and Shellac Prices (in Rs.)

